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An Investigation of the Roles of Group Identification, Perceived Ability, and Evaluative Conditions in Stereotype Threat Experiences

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Abstract

The Multi-Threat Framework distinguishes six qualitatively distinct stereotype threats. Up to now, few studies have been performed to identify the situational and individual determinants of different stereotype threat experiences. This study investigates the role of group identification, perceived ability, and evaluative conditions (private/public) in six stereotype threat experiences for 261 French Physical Education Students. The results show that the expression level of the different stereotype threats does not vary according to evaluative conditions. In contrast, group identification affects all the forms of stereotype threats, and for three forms of stereotype threats, this effect is moderated by the perceived ability level. The theoretical and practical implications of these results are discussed.

Keywords

Stereotype threat, group identification, perceived ability, evaluative condition

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Introduction

Numerous studies have examined the concept of stereotype threat and its implications. According to this concept, fear to conform to stereotypes may alter the cognitive or motor performance of individuals in stereotype relevant domains (Steele & Aronson, 1995). However, as suggested by Shapiro and Neuberg (2007), close analysis of the literature reveals that "stereotype threat often means quite different things to different researchers and has often been employed to describe and explain distinct processes and phenomena" (p. 107). Also, they proposed a theoretical model which distinguished different types of stereotype threat by considering who is threatened and who is the source of the threat. This model is a major theoretical advance and also of methodological interest as it proposes reflection on the necessary conditions for activating different types of threat. The main goal of this study is to increase our knowledge on the individual (group identification and perceived ability) and situational (private/public evaluation) variables eliciting each threat.

Six distinct stereotype threats depend from the intersection of two dimensions—the source of the threat (with three possible sources: the self/outgroup others/ingroup others) and the target of the threat (with two possible targets: the self/one's group) (Shapiro & Neuberg, 2007). Self-Concept Threat (SCT) is a self-as-target and a self-as-source stereotype threat. It is conceptualized as "the fear of seeing oneself as possessing the negative stereotypic trait—the fear that one's performance will confirm in one's own mind that one possesses the negative stereotypic trait of the group to which one belongs" (Shapiro & Neuberg, 2007, p. 112). For example, being a woman preparing to lift a heavy load and be afraid of being as "weak" that what we think of women. Group Concept Threat (GCT) is a group-as-target and a self-as-source, stereotype threat. It is "the fear of seeing one's group as possessing the negative stereotypic trait—the fear that one's performance will confirm in one's own mind that the group to which one belongs is legitimately devalued" (Shapiro & Neuberg, 2007, p. 113). For example, being a woman preparing to lift a heavy load and be afraid to confirm to oneself that women are physically weak. The two Own Reputation Threat (Outgroup, Ingroup) (ORT (Out) and ORT (In), respectively) is self-as-target, and outgroup or ingroup others-as-source, stereotype threat. It is "the fear that one's performance confirms in the minds of outgroup or ingroup members that one possesses the negative stereotypic trait of the group to which one belongs" (Shapiro & Neuberg, 2007, p. 113). For example, being a woman preparing to lift a heavy load in front of a man or a woman and being afraid to confirm in the mind of a man or a woman that one is either as physically weak as what we generally think of women. Finally, the two Group Reputation Threat (Outgroup, Ingroup) (GRT (Out) and GRT (In), respectively) is a group-as-target and outgroup or ingroup others-as-source stereotype threat. It is "the fear of reinforcing negative stereotypes about one's group in the minds of

outgroup or ingroup others—the fear of being a bad ambassador for one's group" (Shapiro & Neuberg, 2007, p. 113). For example, being a woman preparing to lift a heavy load in front of a man or woman and being afraid to confirm in the mind of a man or woman that women are actually physically weak.

In their paper, Shapiro and Neuberg (2007) proposed different conditions necessary for producing each stereotype threat. To our understanding, only stereotype endorsement (Shapiro, 2011) and group identification variables (Shapiro, 2011; Van Laar, Levin, & Sinclair, 2008; Wout, Danso, Jackson, & Spencer, 2008) were tested. For instance, Shapiro (2011) showed that people who weakly endorse stereotype reported fewer self-as-source stereotype threats experiences, and that people with a low group identification level reported fewer group-as-target stereotype threats experiences. Nevertheless, the author explored the experience of different stereotype threats on groups (ethnicity, religion, mental illness . . .) classified as low-endorsed stereotype groups or low identified groups. In this methodological approach, the effect of the variability of stereotype endorsement and identification group level was not taken into consideration and thus does not fully understand the role of these variables in the level of expression of the different experiences of stereotype threat. Moreover, Wout et al. (2008) and Van Laar, Levin and Sinclair (2008) tested the group identification moderator effect on test performance under group/self-threat conditions and showed that in group-threat condition, the higher identified performed worse than the lower identified. However, regarding the self-threat condition, the two studies reported different results: no moderator effect in the study of Wout et al. and a moderator effect in that of Van Laar et al. The participants of the lower identified self-threat condition performed worse than those of the higher identified self-threat condition. Moreover, in these studies, group identification was not considered as a predictor of the different types of threat but as a moderator of the type of threat–performance relation. Furthermore, the authors distinguished two forms of threat according to the target (self/group) and did not distinguish the source of the threats. Finally, a single variable (group identification) was studied without information being given on its level of influence on the various forms of stereotype threats. Therefore, it seems necessary to try to deepen the role of group identification.

Group identification is often defined as the extent to which people include the in-group as a central part of their self-concept (Luhtanen & Crocker, 1992; McCoy & Major, 2003). Group identification is a resource for individuals who perceive a threat associated with stereotype (e.g., Branscombe, Schmitt, & Harvey, 1999). In contrast, high group identification level increase threat in response to stereotype, assuming that for highly identified people, a threat targeting the group is experienced as a personal threat (Cole, Matheson, & Anisman, 2007; McCoy & Major, 2003). According to Shapiro and Neuberg (2007), group identification is implicated in four forms of stereotype threat.

Identification with the group is necessary for both forms of GRT (Outgroup or Ingroup others-as-source) to appear. If individuals do not identify with their group, they are unlikely to consider the consequences of their behaviors regarding how others will perceive their group. In addition, group identification is necessary to experience GCT. If individuals do not identify with their group, they will not feel concerned by the consequences of their own behavior regarding how they view their group. Finally, ORT (Ingroup others-as-source) should also be affected by group identification. Indeed, for an individual identified with one's group, it will be important to be seen positively by others group members. Also, in this study, it was supposed that the group identification level should predict GRT (In) and GRT (Out), the GCT, and the ORT (In) (H1).

Furthermore, another variable seems relevant for predicting the experiences of stereotype threat, that is, perceived ability. Various theoretical models have showed the role of perceived ability as a major antecedent of behavior (e.g., Eccles, Wigfield, & Schiefele, 1998; Harter, 1982; Ryan & Deci, 2000). Although these frameworks differ in several ways, each highlights that a high perception of ability in a domain increase the level of effort, perseverance, and well-being in that domain. Specifically, the physical ability perception affects young people's motivation to engage in physical activities and sports (e.g., Brustad, 1993; Feltz & Petlichkoff, 1983), increases their enjoyment (Scanlan, Stein, & Ravizza, 1989), and decreases their anxiety while involved in these activities (Passer, 1983; Scanlan & Lewthwaite, 1985). Therefore, because stereotype threat can lead people to assess negatively their behavior that produces negative thoughts, such as the feeling of being incompetent (e.g., Kray, Thompson, & Galinsky, 2001; Stangor, Carr, & Kiang, 1998), it seems that perceived ability is a significant predictor of stereotype threat activation. As specified by Steele, Spencer, and Aronson (2002), "the degree of stereotype threat should also vary with how much one feels capable of coping with the threat." (p. 391). Referring to Lazarus's theory of emotion (e.g., Folkman, Lazarus, Gruen, & DeLongis, 1986; Lazarus, 1968) which makes a distinction between an initial assessment of how threatening a stimulus is—the "primary appraisal"—and the second assessment of how well one can cope with it—the "secondary appraisal"—they assumed that this process should apply to the experience of stereotype threat. Indeed, an individual with a high perceived ability in a relevant stereotype threat situation could either reject the application of the stereotype to themselves, or, if they think that the stereotype could be applied, consider that they can cope to the situation (Rydell & Boucher, 2010; Steele et al., 2002) Also, in this study, it was hypothesized that perceived ability should predict each type of stereotype threat. The lower the perceived ability, the greater all the forms of stereotype threat will be (H2).

Finally, the Multi-Threat Framework (Shapiro & Neuberg, 2007) represents a meta-model that describes how an evaluative condition, notably the public/private evaluation distinction, produces specific forms of threat. In the existing

literature, the presence of the experimenter during the achievement of the task (e.g., Marx & Goff, 2005; Quinn & Spencer, 2001; Spencer, Steele, & Quinn, 1999; Stone & McWhinnie, 2008), as an other-as-source of the threat, is a major situational variable in the activation of the stereotype threat. The characteristics of gender, race, and age of the experimenters are both a public evaluative source and a cue activating the group identity targeted by a negative stereotype. Thus, even if in some studies, the experimenter is not present, no instruction guarantees that the performances will remain confidential (e.g., Chalabaev, Major, Sarrazin, & Cury, 2012; Stahl, Van Laar, & Ellemers, 2012), thus giving the participants the opportunity to think that the experimenter will know about their performance. Stereotype threat may occur in both public and private settings (Steele, 1997; Steele & Aronson, 1995). Nevertheless, the literature emphasizes the prevalence of the public source of stereotype threat. To our knowledge, only two studies have activated a private evaluation condition. Inzlicht and Ben-Zeev (2003) told the participants that at the end of the test, their scores "would remain anonymous and confidential by not allowing anyone, including the experimenter, to have personal access to their scores." This self-threat manipulation highlighted that the stereotype threat experience may occur even when an individual knew that no one else would know its performance. The same procedure was used by Wout et al. (2008). The experimenter reported to the participants that he would be the only person who would know their performance, asked them to not write personal information on their test, and told them that at the end of the test, he should insert it into the middle of a pile of previous tests.

It seems that three conditions of evaluation are enough to differentiate three sources of possible threat: the self-evaluation for the self-as-source of threat, the outgroup and ingroup evaluations for the outgroup, and ingroup as source of threat. Also, it was hypothesized that a self-evaluative condition increases the SCT and GCT, an ingroup-evaluative condition—the ORT and GRT toward Ingroup members—and an outgroup-evaluative condition—the ORT and GRT toward Outgroup members (H3).

The research presented here examined the main and interactive effects of the evaluative condition, group identification, and perceived ability on the different forms of stereotype threat. The hypotheses were tested on female sports students. We manipulated evaluative conditions using situations to be imagined in which the participants had to carry out a performance by being alone or in the presence of another individual, a member of the ingroup or the outgroup. It was an original task created for this research and no artificial manipulation was proposed. For example, no oral intervention targeting a social identity or reporting the stereotype associated with the task was used. Regarding the choice of task, the three main cues to stereotype threat activation were proposed: an evaluated, difficult, and stereotype-relevant task.

Method

Participants

The research was approved by the institutional review board and informed consent was obtained from the participants; 151 Physical Education female students of Burgundy University participated in the study. Their ages ranged from 18 to 20 years with a mean age of 18.6 years (SD = 0.6). They participated in a study with a three-condition [test frame manipulation: private evaluation, public (Ingroup) evaluation, public (Outgroup) evaluation] between-subject design.

Measures

Perceived ability. We used a three-item measure to assess the perceived ability for soccer (Duda & Nicholls, 1992)—"I feel that my level of soccer is . . . .," "When comparing myself with other students, my level of soccer . . ." and "For me, soccer is . . ."—which we combined ($\alpha = .78$, 95% CI = .77 to .82). The scores of the responses to all the items were recorded on a scale ranging from 1 (very weak or very difficult) to 7 (very high or very easy).

Group identification. We used the four-item Importance to Identity subscale of the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992) to assess group identification. Sample items were "Being a woman is an important reflection of who I am" and "Overall, being a woman has very little to do with how I feel about myself" (reverse-scored item). The items were measured on seven-point scale with endpoints of 1 (not at all) to 7 (extremely). The internal reliability coefficient was good (Cronbach's $\alpha = .76$).

The threats. Each threat was measured with two items and adapted to the participant's gender. Item content was based on the Multi-Threat Framework Model (Shapiro & Neuberg, 2007) and adapted to the study context (soccer or rhythmic gymnastics evaluation). For every stereotype threat experience, the participant had to estimate the probability that she/he feels it on a scale from 1 to 5.

Example:

- SCT: "I would be worried about performing badly because it would mean in my own mind that I possess the characteristics attributed to women in soccer."
- GCT: "I would be worried about performing badly because it would mean in my own mind that women possess the characteristics attributed to them in soccer."

- Own Reputation Threat (Ingroup): "I would be concerned that in the event of bad performance, the other women might think I have the characteristics attributed to them in soccer."
- Own Reputation Threat (Outgroup): "I would be concerned that in the event of bad performance, the other men might think I have the characteristics attributed to women in soccer."
- Group Reputation Threat (Ingroup): "I would be concerned that bad performance affects the image that women have of themselves about their abilities in soccer."
- Group Reputation Threat (Outgroup): "I would be concerned that bad performance affects the image that the men have of the women (men) about their abilities in soccer."

Procedure

Before the start of a psychology course, each work group (15 to 20 students) was invited to participate in a study on "behaviors in evaluative situations." Three types of questionnaire, corresponding to the three conditions, were randomly distributed to the female student, each receiving only one questionnaire A questionnaire measuring different variables and requiring the same time was distributed to the men.

The participants were invited to imagine themselves in a situation of evaluation in a technical course on soccer. The instruction was:

> You are participating in the course on soccer on one of the grounds of the university. It is a day of evaluation. There are two specific tests and an evaluation in a match situation. You are evaluated in particular by a test estimating your speed with the ball, which is described in the plan below.

It was shown schematically in the questionnaire to facilitate their representation of the situation. Then, the evaluation condition was manipulated by telling them that the measure of their performance was made by a member of the outgroup or by a member of the ingroup or by themselves (in the latter case they were told "that a measuring device with a photoelectric cell and digital chronometer allowed recording their time").

They then had to continue to imagine themselves in this situation and to estimate "the possibility that certain thoughts occur just before beginning the test." They were asked to rate the probability that they experience each of the six stereotype threats and were reminded (again) of the evaluation condition (presence of ingroup, outgroup, or alone). The order of the items was counterbalanced. Finally, the questionnaire ended with the group identification measure and two questions allowed us to evaluate the effectiveness of the stereotype threat manipulation (i) "Was it easy to you to imagine yourselves in this

situation?"—the item was measured on seven-point scale with endpoints of 1 (not at all) to 7 (extremely); (ii) "During performing the test on which you were assessed: were you alone to assess yourself, evaluated by a man or evaluated by a woman?"—participant had to choose only one proposition.

Results

Data from 10 participants were eliminated, because they scored less than 4 on the measure of the mental representation of the situation. However, all the participants chose the proposition corresponding to the assigned condition. Analyses were then performed on the data provided by the remaining 141 participants. A multiple regression was run to predict stereotype threat experiences from evaluative condition, perceived ability, and group identification and all the interactions among these variables. All the variables were centered. Results are presented in Table 1.

Group identification effect (H1)

It was hypothesized that the group identification level should predict the GRT (In) and GRT (Out), the GCT, and the ORT (In). The results partially confirmed our hypothesis. Indeed, group identification affects GCT, $F(1, 135) = 4.68$, $p = .04$, $\eta^2 = .03$, ORT (In), $F(1, 135) = 5.68$, $p = .02$, $\eta^2 = .04$, GRT (Out), $F(1, 135) = 4.35$, $p = .03$, $\eta^2 = .04$, and GRT (In), $F(1, 135) = 4.25$, $p = .03$, $\eta^2 = .03$. The higher the group identification, the stronger the GCT, ORT (In), GRT (Out), and GRT (In). More surprisingly, the results revealed a group identification effect on SCT, $F(1, 135) = 6.19$, $p = .01$, $\eta^2 = .05$, and ORT

Table 1. Simple and interactions effects of the condition, perceived ability, and group identification on the stereotype threat experiences.

Threats/predictor variables	SCT		GCT		ORT (In)		ORT (Out)		GRT (In)		GRT (Out)	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Condition	.04	.08	.01	.07	.07	.08	.07	.08	.02	.07	.05	.08
PA	−.15*	.13	−.05	.12	−.03	−.05	−.01	.15	−.04	.12	.05	.08
GI	.17**	.12	.15*	.11	.16*	.12	.20**	.13	.15*	.11	.14*	.13
Condition × PA	−.09	.09	−.07	.08	.09	.09	−.16*	.10	−.02	−.03	−.17*	.11
Condition × GI	.07	.08	.02	.07	.09	.08	.18*	.13	.08	.09	.08	.09
PA × GI	−.08	.16	−.16*	.14	−.18*	.14	−.06	.11	.15	.09	−.17*	.18

GCT: Group Concept Threat; SCT: Self-Concept Threat; PA: perceived ability; GI: group identification; ORT (In): Own Reputation Threat (Ingroup); ORT (Out): Own Reputation Threat (Outgroup); GRT (In): Group Reputation Threat (Ingroup); GRT (Out): Group Reputation Threat (Outgroup).
*$p < .05$; **$p < .01$.

(Out), $F(1, 135) = 9.19$, $p = .003$, $\eta^2 = .06$. As previously, the higher the group identification, the stronger the SCT and ORT (Out).

Perceived ability effect (H2)

It was hypothesized that the lower the perceived ability, the higher all the forms of stereotype threat would be. The results showed a prevalent effect of perceived ability on SCT and no significant effects on the other forms of stereotype threat. The higher the perceived ability, the lower the SCT reported, $F(1, 135) = 4.71$, $p = .03$, $\eta^2 = .04$.

Evaluative condition effect (H3)

It was hypothesized that a self-evaluative condition increases the SCT and GCT, an ingroup-evaluative condition orients the ORT and GRT toward Ingroup members and an outgroup-evaluative condition orients the ORT and GRT toward Outgroup members. Results of the mean score of the different threats in the different evaluative conditions are presented in Table 2. Contrary to our expectations, the results showed that the evaluative condition did not affect the score variability of each form of threat ($F < 1$).

Interaction effects

Condition × PA. The analyses revealed a Condition × PA interaction effect on ORT (Out), $F(1, 135) = 4.54$, $p = .04$, $\eta^2 = .02$, and GRT (Out), $F(1, 135) = 4.77$, $p = .03$, $\eta^2 = .03$. Significant interaction effects were interpreted by calculating simple slopes and regions of significance for low (−1 SD) and high (+1 SD) perceived ability. In the private and public (Ingroup) evaluative condition, the ORT and GRT (Out) were not affected by the PA level. In contrast, in the public (outgroup) evaluative condition, the lower the perceived ability, the

Table 2. Mean score of Self-Concept Threat, Group Concept Threat, Own Reputation Threat, and Group Reputation Threat as a function of the evaluative conditions.

Threats/evaluative conditions	SCT	GCT	ORT (In)	ORT (Out)	GRT (In)	GRT (Out)
Private	2.6 (.19)	2.39 (.17)	2.5 (.19)	3.02 (.21)	2.61 (.17)	2.97 (.21)
Public Ingroup	2.85 (.18)	2.63 (.16)	2.69 (.18)	3.21 (.21)	2.45 (.17)	2.9 (.2)
Public Outgroup	2.86 (.19)	2.48 (.18)	2.82 (.19)	3.27 (.21)	2.63 (.17)	3.27 (.21)
Total	2.77 (.19)	2.5 (.17)	2.67 (.19)	3.16 (.21)	2.56 (.17)	3.04 (.21)

SCT: Self-Concept Threat; GCT: Group Concept Threat; ORT (In): Own Reputation Threat (Ingroup); ORT (Out): Own Reputation Threat (Outgroup); GRT (In): Group Reputation Threat (Ingroup); GRT (Out): Group Reputation Threat (Outgroup).

higher the ORT and GRT (Out) (M= 4.05 and 4.03 for lower and 2.68 and 2.52 for higher, respectively).

Condition × Group Identification. Analyses showed a Condition × Group identification interaction effect on ORT (Out), $F(1, 135) = 6.31$, $p = .01$, $\eta^2 = .04$. Significant interaction effect was interpreted by calculating simple slopes and regions of significance for low (−1 SD) and high (+1 SD) group identification. In the private and public (Ingroup) evaluative condition, the ORT (Out) was not affected by the group identification level. In contrast, in the public (Outgroup) evaluative condition, the higher the group identification, the higher the ORT (Out) ($M = 2.73$ for lower and 4.01 for higher).

PA × Group identification. The analyses revealed the Perceived Ability × Group identification interaction effect on GCT, $F(1, 135) = 5.32$, $p = .02$, $\eta^2 = .04$, ORT (In), $F(1, 135) = 4.85$, $p = .03$, $\eta^2 = .03$ and GRT (Out), $F(1, 135) = 4.16$, $p = .04$, $\eta^2 = .03$. Significant interaction effects were interpreted by calculating simple slopes and regions of significance for low (−1 SD) and high (+1 SD) group identification and perceived ability. For the higher PA, the group identification level did not affect the GCT, ORT (In), and GRT (Out). In contrast, for the lower PA, the individuals with higher group identification reported more GCT ($M = 2.9$ vs. 2.3), ORT (In) ($M = 3.21$ vs. 2.33), and GRT (Out) ($M = 3.7$ vs. 2.84) than the individuals with lower group identification.

Discussion

Referring to the Multi-Threat Framework (Shapiro & Neuberg, 2007), we examined the impact of the private/public evaluative condition, the perceived ability, and group identification on the activation of the different stereotype threats.

Contrary to our expectations, the evaluative condition did not have a significant effect on the different type of threat. SCT and GCT were not more significant in the private condition than in the others; ORT (In) and GRT (In) were not more significant in the Public (Ingroup) condition, and ORT (Out) and GRT (Out) were not more significant in the public (Outgroup) condition. This result nuances the importance of social cues as the eliciting condition necessary to produce each stereotype threat. It could be supposed that, contrary to the proposition of Shapiro and Neuberg (2007), it seems that it is not sufficient to believe one's behaviors are public to ingroup or outgroup others to feel an ingroup or outgroup source of threat. Nevertheless, it is different to be actually in the presence of nobody and to believe that nobody might have knowledge of his performance. This result simply shows that the presence or not of an other is not sufficient to determine how, in the mind of an individual, the source of the threat is perceived. However, Shapiro and Neuberg (2007) reported that most of the conditions necessary to yield each stereotype threat can either be cued by

salient situations or exist as dispositional inclinations. For instance, an additional analysis showed that the participants reported more outgroup as source of stereotype threat than ingroup or self as source of stereotype threat ($M = 3.10$/ vs. 2.62 and 2.63). This result suggests that participants are more inclined to perceive the outgroup as a threat or to give more importance to the evaluation of their behavior by members of the outgroup than by members of their group or by themselves.

Some results show contradictions with the proposition of Shapiro and Neuberg (2007) regarding the relevant or irrelevant character of certain factors to predict the different stereotypes. Contrary to our expectations, group identification affected all the stereotype threats. Group identification has a strong effect on GCT, ORT (In), GRT (Out), and GRT (In) but also on SCT and ORT (Out). The higher the group identification, the greater these stereotype threats were. One of the most important contradictions was the group identification effect on the self-as-target threats. Why the group identification reinforces the fear of seeing oneself as possessing the negative stereotypic trait (SCT) or the fear that one's performance confirms in the minds of outgroup members that we possess the negative stereotypic trait of one's group (ORT (Out))? In an evaluative situation, it seems that being identified with one's group is a necessary condition for the activation of the stereotype threat. Referring to the principles of social categorization (Tajfel & Turner, 1986), we can assume that the higher the group identification is, the more prominent the cues regarding the group will be for the participant and therefore the more they will be disposed to activate the negative stereotype targeting their group and thus feel threatened by it.

Also, this principle seems relevant to explain that the identification level affects the SCT or the ORT (Out). The more a participant is identified with their group, the more they will be sensitive to the characteristics of the task highlighting the negative beliefs targeting their membership group, and thus the more they will be sensitive to the difficulty assumed in performing it.

Another interesting result is the interaction effect between the identification group and the perceived ability on ORT (In) and GRT (Out), but also on GCT. As suggested by Shapiro and Neuberg (2007), identifying with the group is necessary for the experience of these forms of stereotype threat, but our results also show that the group identification effect on ORT (In) and GRT (Out) depends on the perceived ability level of the participants. Also, our results reveal that group identification affects GCT only for participants with a lower perceived ability. Contrary to our expectations, perceived ability does not sufficiently explain the variation in the manifestation of all threats (except for SCT). However, among the most identified participants with the group targeted by a negative stereotype, a low level of perceived ability may favor GCT, ORT (In), and GRT (Out). As suggested in the Social Identity literature, the self-esteem moderates reactions to the threatening situations (Hogg, 2007). To view themselves more positively, individuals with a strong self-esteem can more easily

change their social identity for another (Mussweiler, Gabriel, & Bodenhausen, 2000; Roccas, 2003). In contrast, people with a low self-esteem remained identified in spite of the negatives consequences. Therefore, as suggested by Lazarus's theory of emotion (Folkman et al., 1986; Lazarus, 1968), strongly identified individuals with a low perceived ability in relevant GCT, ORT (In), and GRT (Out) situations will consider that the stereotype may apply from themselves or their group, and mostly, if they think that the stereotype can be applied, they will consider that they cannot carry out the task effectively, and therefore they undergo these different forms of threats.

Moreover, as we reported previously, SCT is affected by group identification and perceived ability, without these two variables interacting. The higher the perceived ability, the lower the SCT. According to Shapiro and Neuberg (2007), "to care about the implications of one's stereotype-relevant actions for the way one sees oneself" (p. 115) is the condition necessary for experiencing SCT. This result seems to show the moderator effect of perceived ability on these variables. Indeed, to consider a domain with interest and care about the consequences of one's actions could increase the intensity of experiencing SCT only if the person doubts their ability to perform the task assessed. Furthermore, the results revealed that the perceived ability affects the ORT (Out) and GRT (Out) experience but only when the participants were evaluated for a outgroup member. The presence of an outgroup member was often used to activate the stereotype threat because it facilitates the activation of the negative stereotype targeting its group and thus the negative expectations of performance among the members of the group targeted. Therefore, in this potentially threatening situation, whether for their own reputation or that of the group, the less a participant perceives themselves as competent in the domain assessed, the less they will feel able to perform the task assessed and thus the more they will feel threatened.

To sum up, these results show that to experience various stereotype threats, an individual must be identified with the group targeted by a negative stereotype, and that for certain stereotype threat experiences this effect can be strengthened by perceived ability. On the other hand, the presence or not of another does not influence the source of the various threats. Nevertheless, the present experiment suffered from methodological impediments which must be addressed in future research. The main limitation is the manipulation of the private/public evaluative condition with a scenario methodology. Although we checked the capacity of the participants to imagine the situation, we do not have the certainty that the participants perceived themselves in a private or public condition. Another possibility would have been to test the participants in a real condition. Indeed, it is possible that the same situation lived in a real condition would make the signals sent back to the source of the threat more striking. Thus, it seems necessary to replicate this protocol in real conditions to confirm if, as shown in this study, the sources of the stereotype threat are not influenced by the evaluation conditions. Finally, this study has contributed to the literature

on stereotype threat by focusing on the conditions of activation of the various forms of stereotype threat. Finalizing this approach entails formulating a pattern of situational and individual determinants for every experience of stereotype threat. For us, this approach seems to have an important scientific impact, because by trying to identify the determinants of the various forms of threats, and thus target each of them specifically, we think that future studies in this domain will be capable of specifying the mediator processes, the consequences of each stereotype threat and, finally, the most effective interventions.

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