# Awareness Level of Gender Stereotype and Stereotype Threat Effect on Ingroup Favoritism Bias in Mixed-Gender Basketball Teams

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The main goal of this study was to investigate how the awareness level of a gender stereotype in sports activities affects the stereotype threat effect on ingroup favoritism bias in mixed-gender teams playing basketball. Four classes of French high school pupils in physical education were subjected to one of two conditions: subtle or blatant stereotype activation. In each condition, four-player teams with two girls and two boys were formed, and the number of passes made by each participant was counted. Girls showed ingroup favoritism when the stereotype was blatantly activated and outgroup favoritism when it was subtly activated, whereas the boys exhibited persistent ingroup favoritism that was stronger under the blatant condition. The effect of activating a stereotype on intergroup relationships is dependent on the awareness level of the stereotype. It may be relevant to enhance awareness of stereotypes by targeting members of low status to reinforce intragroup relationships.

Keywords: physical activity, stereotype threat, mixed group, gender stereotype, ingroup favoritism bias

Previous research has clearly shown that boys participate in sports activities more often than girls (Fredricks & Eccles, 2005), that they are more interested in physical education classes, and that they generally tend to perform better in many motor tasks (Bois, Sarrazin, Brustad, Trouilloud, & Cury, 2002; Carothers & Reis, 2013). A growing number of researchers in social psychology have emphasised the role of social stereotypes to explain gender differences in performance and involvement in sport activities (Chalabaev, Sarrazin, Fontayne, Boiche, & Clement-Guillotin, 2013). In this study, we focus on how the awareness level of a gender stereotype in sport affects stereotype threat effects on behaviours between girls and boys in mixed-gender teams.

#### **Stereotype Threat**

The stereotype threat theory assumes that when a negative stereotype about a group becomes salient, individual group members may become concerned that their behaviour confirms the validity of the negative stereotype (for review, see Schmader, Johns, & Forbes, 2008). Few studies have been performed on motor tasks, though Beilock, Jellison, Rydell, McConnell, and Carr (2006) and Stone and McWhinnie (2008) demonstrated the stereotype threat process in putting tasks in golf. Similar effects were shown by Chalabaev, Sarrazin, Stone, and Cury (2008), using a dribbling task in soccer. These studies found that male participants perform poorly when told that women are better at putting and, conversely, that women's performances decrease when a task is presented to them as an indication of their athletic or soccer ability. These studies thus provide evidence of negative stereotypes about women's abilities in sports.

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Moreover, many studies on sports and other domains have investigated the effects of stereotype threat on personal strategies used to preserve self-esteem, like self-handicapping (e.g., Keller, 2002; Schimel, Arndt, Banko, & Cook, 2004; Stone, 2002), task discounting (e.g., Klein, Pohl, & Ndagijimana, 2007; Lesko & Corpus, 2006), group disidentification (e.g., Cohen & Garcia, 2005; Pronin, Steele, & Ross, 2004), and domain disidentification (e.g., Nussbaum & Steele, 2007; Smith, Sansone, & White, 2007). In these studies, stereotype threat was identified at the individual level. However, Shapiro and Neuberg (2007) theorized that negative stereotypes about one's group would lead group members to experience different threats that vary according to their source: oneself, outgroup others, or ingroup others, and the target of the threat: oneself or one's group. This model showed how individuals may fear confirming to others or themselves that their group has been legitimately devalued and may thus produce group strategies to preserve a positive group image. To our knowledge, only one study has focused on the strategies used at the group level and showed that for elderly individuals, positive intergenerational contact reduced the stereotype threat effect on their intellectual performance (Abrams, Eller, & Bryant, 2006). The main goal of the present study was to investigate the effect of activating a negative stereotype targeting girls' lack of involvement in sports activities on intergroup strategies in a real intergroup context: playing basketball in mixed-gender teams.

# Social Identity Approach Versus System Justification Theory

According to the social identity approach (Haslam, 2004), group members in an intergroup context try to preserve a positive social identity by comparing their own group with other groups and establishing a positively valued psychological distinctiveness for the ingroup in relation to the outgroup. Indeed, a key assumption in social identity theory is that individuals are intrinsically motivated to achieve positive distinctiveness. That is to say that indi-

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viduals strive for a positive self-concept. As individuals may be defined and informed to varying degrees by their respective social identities, social identity theory also postulates that individuals strive to achieve or maintain a positive social identity. This produces an evaluative bias that generally refers to the systematic tendency to evaluate one's own group (the ingroup) or its members more favorably than another group (the outgroup) or its members (Dovidio & Gaertner, 2010). This also tends to produce behaviour biases, such as the ingroup favoritism bias, which may be expressed by unfair, illegitimate, or unjustifiable behavioural responses that exceed the objective requirements or evidence of a given situation (Fiske, 1998; Turner & Reynolds, 2001). For example, in mixed-gender basketball teams, one might expect that the members of a gender group would show a tendency to make more passes to other members of the group than to members of the other group. However, physical education teachers observe that in mixed-gender teams in sports such as basketball, both boys and girls prefer to make passes to boys rather than to girls (Grehaigne, Billard, & Laroche, 1999).

Indeed, basketball (and sports in general) is considered a masculine activity in Western countries (e.g., Gilenstam, Karp, & Henriksson-Larsén, 2008; Matteo, 1986), whereas gender stereotypes in sports call into question not only the competence of girls but also their level of involvement (Fontayne, Sarrazin, & Famose, 2001). These assumptions confer a lower status to girls. Recent studies have shown that low-status group members may display outgroup favoritism (e.g., Lewis & Sherman, 2003; Olson, Crawford, & Devlin, 2009). In the classic Clark and Clark (1939) doll studies, African American children preferred White dolls over African American dolls. According to system justification theory (SJT; Jost & Banaji, 1994), members of low-status groups may behave in ways that reinforce and legitimate existing social systems, and outgroup favoritism is a strategy for legitimating inequality between groups. Outgroup favoritism refers to the tendency to express a preference for members of an outgroup because of the need to believe that "the system" is just and fair and thus that one's low status is deserved (Dasgupta, 2004; Jost, Banaji, & Nosek, 2004). This could explain the behaviour of girls in mixedgender teams. Indeed, it may be inferred that because girls are treated unfairly in a system (e.g., sport activities) and want to justify it, they comply with the system by preferring to give the ball to boys. Therefore, the activation of a negative stereotype targeting girls' lack of involvement in sports activities would not change the behavioural bias of boys or girls: boys would continue to show ingroup favoritism and girls would show outgroup favoritism.

## **Subtle Versus Blatant Stereotype Activation**

System justification theory and the social identity approach lead to contradictory predictions with regard to behaviours adopted in particular by members of dominated social groups. One of the variables that may shed light on this paradox is the level of subtlety of stereotype activation. Indeed, when stigmatized targets are in a stereotype-relevant situation, they evaluate a broad set of cues in the setting to assess the potential for negative characterization (Steele, Spencer, & Aronson, 2002). Also, stereotypes can be introduced into a social situation with differing degrees of subtlety, providing individuals with differing levels of awareness about the

association between stereotype priming and their behaviour (Higgins, 1996; Moskowitz & Roman, 1992). Some cues for threat are blatant, such as when targets are told directly that their group is performing a task more poorly than another group (e.g., Spencer, Steele, & Quinn, 1999) or when a task is explicitly framed as measuring attributes related to a negative ingroup stereotype (e.g., Stone, Lynch, Sjomeling, & Darley, 1999). Other cues for threat are subtle, such as when the task is administered by an outgroup member (e.g., Stone & McWhinnie, 2008) or when targets hold minority status in the performance context (e.g., Sekaquaptewa & Thompson, 2002). This distinction between subtle and blatant cues for threat is relevant because it may create an assimilation or a contrast effect (stereotype reactance; Wheeler & Petty, 2001). A subtle stereotype activation may trigger behavioural assimilation. Based on James's (1890) notion of ideomotor action, subtle activation effects may reflect a relatively passive perception—behaviour connection in which behavioural tendencies associated with the stereotype are activated following automatic activation. The social situation described above is sufficient to activate subtle gender stereotypes negatively (vs. positively) targeting girls (vs. boys). A mixed-gender situation activates the gender identity of individuals and the task (playing a basketball game) and the stereotypic beliefs associated with this sport (Clément-Guillotin & Fontayne, 2011; Pickard Leszczynski & Strough, 2008). Thus, girls and boys should automatically respond to the situation by producing behaviours associated with the stereotype, that is, preferentially giving the ball to a boy. Because girls are seen as less involved and effective in basketball, they should automatically be less active than boys. Also, in this situation, SJT seems relevant to predict intergroup behaviours, notably the outgroup favoritism bias for girls.

However, when a negative stereotype about their social group is blatantly activated, the target may produce behaviours that are inconsistent with the stereotype (stereotype reactance). The underlying assumption made to explain stereotype reactance is that the awareness level of a stereotype is stronger when it is blatantly activated, which may trigger anger and a behavioural reaction to prove that the difference in status between two groups concerning a domain is not legitimate (Kray, Thompson, & Galinsky, 2001). For instance, Oswald and Harvey (2000) showed that in the condition in which women were exposed blatantly to the stereotype targeting women's mathematical performance, women who were told nothing about gender differences in the test did better than women told that men and women perform equally. Nevertheless, the conditions underlying this phenomenon remain unclear. Some studies report negative effects of the activation of a stereotype on performance whatever the awareness level of the stereotype (e.g., Smith & White, 2002). Although this phenomenon remains marginal compared to numerous studies showing the effects of stereotype threat, this distinction between subtle and blatant cues seems relevant. Indeed, according to the social identity approach (Haslam, 2004), the blatant activation of a stereotype threatening their social identity should get girls to improve their status in the context of physical activity and also increase ingroup favoritism. The same phenomena should be observed for boys but for different reasons. The blatant activation of a stereotype valuing their social identity should motivate them to reinforce their status in physical activity and also to increase ingroup favoritism bias. Furthermore, in a mixed-gender team, the blatant activation of a gender stereotype should motivate the participant to preferentially give the ball to a same-gender group member.

In the present research, the main goal was to investigate the effect of the awareness level of a stereotype targeting the difference of involvement between girls and boys in sports activities on ingroup favoritism bias in a real intergroup context: playing basketball in mixed-gender teams. Two key individual variables for the stereotype threat activation were controlled: gender group identification, because individuals strongly identified with their group are more susceptible to the activation of a stereotype, which has an effect on their behavioural reactions in situations that threaten their group identity (for review, see Ellemers, Spears, & Doosje, 2002), and stereotype consciousness or "the awareness that others endorse the stereotype" (McKown & Weinstein, 2003), because individuals who are aware of a broadly held stereotype about their group may be more concerned that their test performance will be judged on the basis of the stereotype (Steele & Aronson, 1995).

Globally, a stronger ingroup favoritism bias was expected for boys than for girls and a stronger ingroup bias in the blatant than in the subtle activation condition. More specifically, we hypothesised that the condition had an effect on the boys' ingroup favoritism bias, with a stronger ingroup bias in the blatant than in the subtle activation condition, and that it had a stronger effect on the girls, with an outgroup favoritism bias in the subtle activation condition and an ingroup favoritism bias in the blatant activation condition.

#### Method

## Sample and Design

The participants were 81 French high school pupils in four physical education classes. Forty-three participants were girls and 38 were boys. The mean age of the pupils was 15.9 years, ranging from 14–16 years. Informed consent was obtained from the participants and from their parents. A letter was distributed to and collected from the pupils. This letter asked the pupil and their parents whether they accepted to participate in a psychological study on mixed-gender physical education classes. They were informed that the data collected would be anonymous and confidential. The letter had to be signed by the pupil and one of their parents to validate the consent. This study employed a 2  $\times$  2 design, with two levels of stereotype activation (blatant vs. subtle condition) and two gender levels (girl vs. boy), and was approved by the Review Board of the Department of Psychology.

#### **Procedure**

To control the sources of gender stereotype activation on the day of the study, the participants completed the gender identification and stereotype consciousness questionnaires 1 month before the study. On the day of the experiment, two classes were assigned to each of the two experimental conditions by a random draw.

As stated previously, gender stereotypes in sports call into question not only the competence of women and girls but also and especially their level of involvement (Fontayne et al., 2001). We therefore decided to activate this belief about involvement. The participants in the blatant stereotype activation condition were

told, "I am conducting a study for the French Ministry of Education on pupils' behaviour in mixed-gender physical education classes, especially their involvement in collective sports like basketball. As suggested by other studies on basketball, I noticed in other schools that girls are less involved than boys when playing basketball. I need to continue to observe pupils to check these impressions." The participants in the subtle stereotype activation condition were simply told, "I am conducting a study for the French Ministry of Education on pupil behaviour in mixed-gender physical education classes. Thus I need to observe you to collect information." The same teacher and researcher—two males—were present during the instructions and the evaluation. The fact that the two observers were male was a methodological precaution to enhance the probability of a subtle activation of gender stereotype (Stone & McWinnie, 2008).

For each class, on the basis of a previous evaluation, the teacher composed five four-player teams of two girls and two boys of the same skill level. All five teams in a given class were in the same condition. Each participant was classified according to his or her skill level. In each class, a ranking was established for the girls and for the boys. The participants were not informed of this ranking. The better boys were mixed with the better girls, and the least good boys were mixed with the least good girls. Also, the boys and girls in the same team did not have the same "real" skill level, but each girl and boy played with another girl or boy having the same skill level. The data used to measure their skill levels were grades 0-20 collected by the teacher at the first basketball session ( $M_{\text{pirls}}$  = 12.8 and  $M_{\text{boys}} = 13.6$ ). The grades were based on a large number of technical and tactical aspects of basketball developed in the evaluation framework used for the French baccalaureate. No statistically significant differences appeared between the four classes,  $F_{girls}$  (3, 40) = 0.87, ns,  $\eta^2$  = .01;  $F_{boys}$  (3, 35) = 0.92,  $ns, \, \eta^2 = .01.$ 

The students then played 5-min matches based on the "up-and-down" rule. Two courts, 1 and 2, were used. The winning team moved up from Court 2 to 1 or did not move if it was already in Court 1. The losing team moved down from Court 1 to 2 or, if it was already in Court 2, it was replaced by the team waiting to play. If a team won two victories in Court 1, it was replaced. Every team participated in five matches. Not all the teams had exactly two girls and two boys. Three of the teams were composed of three girls instead of two, with one of the girls being replaced by another after each minute of play as the three girls could not all play at the same time. As for the boys, two teams were composed with one player who played with two teams. All the matches were played with two teams composed of two girls and two boys. All the participants played in the matches after the instructions had been given, and they were all debriefed and thanked at the end of the experiment.

#### Measures

We used the four-item Importance to Identity subscale of the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992) to assess gender identification. Sample items are "Being a girl/boy is an important reflection of who I am" and "Overall, being a girl/boy has very little to do with how I feel about myself" (reverse-scored item). Principal component analysis was carried out to check that the four items are unidimensional. We used the Kaiser criterion to determine the number of factors and the .7 level as the minimum

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loading. We found one factor with all the items over the minimum loading. The items were measured on 7-point scales with endpoints of 1 (*not at all*) to 7 (*extremely*) and were averaged. The internal reliability coefficient was good, Cronbach's  $\alpha = .78, 95\%$  CI [.75, .81].

Stereotype consciousness was measured using two items addressing the level of basketball performance that others assigned to girls and boys (Bonnot & Croizet, 2007). They rated the items "Most people think that women's performance in basketball is" and "Most people think that men's performance in basketball is" on a scale ranging from 1 (*very poor*) to 7 (*very good*). The scores on the item for girls were reversed, so that a score lower than 4 conveyed a perception that most people think girls are better than boys in basketball, and a score higher than 4 that most people think boys are better than girls. These two items were averaged. For instance, a score of 2 on the women performance item and a score of 5 on the men performance item give a stereotype consciousness score of (6 + 5)/2 = 5.5. The correlation coefficient between the two items was good, r(79) = .72, p < .001, 95% CI [.70, .74].

All the matches were videotaped to assess favoritism bias. Two observers (the researcher and the teacher) counted the number of passes made by each participant to the members of the ingroup and the outgroup. The difference between the number of passes made to the ingroup and the outgroup was calculated for each participant. A positive score indicated ingroup favoritism and a negative score indicated outgroup favoritism. The two observers scored all the games. The interrater analysis was  $\kappa = .97$ , p < .001.

#### **Results**

## **Preliminary Analysis**

A 2 × 2 multivariate analysis of variance was conducted to check intergroup variability in gender identification and stereotype consciousness. The results showed that gender identification and stereotype consciousness did not differ significantly between the conditions: F(1, 77) = 1.34, ns,  $\eta^2 = .02$  and F(1, 77) = 1.14, ns,  $\eta^2 = .02$ , respectively, or between girls and boys, F(1, 77) = 0.67, ns,  $\eta^2 = .01$  and F(1, 77) = 0.97, ns,  $\eta^2 = .01$ , respectively. Moreover, the interactions were not statistically significant: F(1, 77) = 1.37, ns,  $\eta^2 = .02$  and F(1, 77) = 1.34, ns,  $\eta^2 = .02$ , respectively.

As the number of passes depends on the team playing level, we used this measure to assess possible team differences. A one-variable analysis of variance was used to test the differences between teams and did not show significant differences, F(19,

57) = 0.99, *ns*,  $\eta^2$  = .02. The mean number of passes made by the teams during the matches was 26.2 (SD = 3.1).

## **Primary Analysis**

Although the previous analyses did not reveal differences between gender and conditions on gender identification and stereotype consciousness, the latter are two key individual variables for stereotype threat activation. We therefore decided to covary them in our analyses. To test our hypothesis, a 2 × 2 (subtle/blatant condition by female/male gender) analysis of covariance with gender identification and stereotype consciousness as covariates was performed on the ingroup favoritism bias. The results showed a gender effect, F(1, 75) = 25.64, p < .001,  $\eta^2 = .25$ . Globally, boys displayed more ingroup favoritism (M = 1.2, SD = .2) than girls (M = -.2, SD = .3). Moreover, the intergroup strategies differed according to the condition, F(1, 75) = 7.74, p < .01,  $\eta^2 =$ .09, but this effect is especially true for girls. Indeed, the results show a marginal Gender  $\times$  Condition effect, F(1, 75) = 2.86, p =.09,  $\eta^2 = .04$ . A complex interaction effect was expected, and this was the critical test of our hypotheses. This was the reason we decided to consider this effect despite p = .09. Therefore, whatever the gender of the participant, ingroup favoritism increased between subtle and blatant conditions, but the increase was stronger for girls than for boys. Indeed, post hoc honest significant difference (HSD) tests did not reveal a significant difference (p = $.11, \eta^2 = .07, 95\%$  CI [.05, .09]) for boys between subtle (M = 1, SD = .2) and blatant (M = 1.4, SD = .3) conditions, whereas there was a significant difference  $(p = .01, \eta^2 = .16, 95\% \text{ CI } [.13, .19])$ between girls for subtle (M = -.8, SD = .3) and blatant (M = .3, SD = .3)SD = .2) conditions (see Table 1).

#### Discussion

The aim of the present research was to study the role of gender stereotype activation in ingroup favoritism bias by focusing on mixed-gender basketball teams, and, more specifically, it was assumed that the awareness level of gender stereotype among the participants had an effect on ingroup favoritism bias.

The results showed that when the cues for threat are subtle in a stereotype-relevant situation, both boys and girls in high school basketball teams made fewer passes to girls than to boys. These results confirm the literature on the effect of group status on favoritism bias. In the context of sports, low-status group members, such as girls in basketball, show outgroup favoritism, and high-status group members, such as boys, show ingroup favorit-

Table 1
Mean Number of Passes to Girls and Boys by Teams, Gender Identification, and Stereotype Awareness Level and Mean Scores of the Favoritism Bias for Girls and Boys as a Function of the Conditions

	Blatant condition ( $n = 21$ girls, 19 boys)					Subtle condition ( $n = 22$ girls, 19 boys)				
	Passes to girls	Passes to boys	Favoritism bias	Gender identification	Stereotype consciousness	Passes to girls	Passes to boys	Favoritism bias	Gender identification	Stereotype consciousness
Girls	22.1 (2.3)	17.2 (2.1)	.3 (.2)	5.1 (.9)	5.3 (1)	12.4 (1.9)	29.2 (2.4)	8(.3)	5.3 (1.1)	5.4 (1.1)
Boys	29.1 (2.6)	57.3 (3.1)	1.4(.3)	5.4(1)	5.2(1)	23.2 (2.9)	42.6 (3.4)	1 (.2)	5.3 (.9)	5.3 (1)
Total	25.6 (2.4)	37.2 (2.6)	.9 (.2)	5.3 (.1)	5.3 (1)	17.8 (2.3)	35.9 (2.9)	.1 (.3)	5.3 (1)	5.4(1)

ism. According to SJT (Jost & Banaji, 1994), these results indicate that members of low- and high-status groups try to produce behaviours that reinforce and legitimate existing social systems because they need to believe that their low or high status is deserved (Dasgupta, 2004; Jost et al., 2004). Nevertheless, this study also showed that the awareness level of the gender stereotype affected ingroup favoritism bias. The analyses revealed that ingroup favoritism is stronger in the blatant condition than in the subtle condition and that this effect is especially true for girls.

More specifically, our results showed that a blatant activation caused ingroup favoritism bias for girls, whereas a subtle activation of the stereotype did not change their tendency to prefer giving the ball to an outgroup member. As suggested by Kray et al. (2001), a blatant activation may have triggered psychological discomfort in the girls, prompting them to try to prove that the status difference between girls and boys concerning involvement in sport activities such as basketball was not legitimate, which they did by making more passes to the members of their group. Moreover, although the result was not significant, ingroup favoritism bias seemed to be greater for boys when the stereotype was activated blatantly rather than subtly. According to the social identity approach (Haslam, 2004), a possible explanation is that high-status group members, such as boys in a physical education context in which their superiority is explicitly reported, might be highly discriminatory and ethnocentric and try to extend their superiority in this field to reinforce the legitimacy of their status with respect to girls.

Although this study revealed the relevance of considering the awareness level of a stereotype to understand how a negative (vs. positive) stereotype targeting girls (vs. boys) affected ingroup favoritism bias in mixed-gender teams, certain limitations should be considered. The first concerns the nature of the stereotype activated. In a study focused on the ingroup favoritism bias, the choice to activate a stereotype targeting lack of involvement rather than lack of competence about girls appears to be relevant. However, it may also guide the behaviour of girls without this necessarily being seen as an ingroup favoritism bias. Instead, this behaviour may have reflected acute awareness of the gender of those they passed to. It would be interesting to determine whether ingroup favoritism bias is also apparent when the stereotype is not linked so directly (e.g., in a study highlighting stereotypes of girls as less competent in sport). Moreover, as this study focused on a collective strategy, it would be relevant to also test the effect on individual strategies of stereotype activation targeting the lack of involvement of girls, for instance, by assessing the quantity of movement performed or the distance run by the participants. Last, a future study with complete randomization of the participants is needed to confirm our results. This study was conducted with school classes assembled into teams by their teacher, which precluded the complete randomization of the teams and conditions.

Furthermore, potential moderators of these effects were not taken into account in this study. In future studies, it will be necessary to control other factors that increase stereotype susceptibility, such as stereotype endorsement (Schmader, Johns, & Barquissau, 2004) and domain identification (Keller, 2007). Moreover, although the applied nature of this study strengthens the social validity of our results, it also has disadvantages, because it failed to control certain variables that may influence intergroup relationships, such as the relational climate between groups

(Abrams et al., 2006). According to intergroup contact theory (Pettigrew, 1998), when people have positive relationships across intergroup boundaries, especially friendships, this may create the potential for establishing a common ingroup identity. Thus, it is possible that the intercondition variability of the relational climate between girls and boys could explain the variation in the intergroup behaviours.

This set of results contributes to the literature on the consequences of stereotypes in the domain of physical education. It shows that the activation of a stereotype in an intergroup context may affect intergroup relationships, notably ingroup favoritism bias, and that this effect is dependent on the awareness level of the stereotype. In an applied perspective, this study highlights that the intergroup relations were not rigid, as was, for example, postulated in social dominance theory (Sidanius & Pratto, 1999), and that it was possible to overcome certain outgroup favoritism behaviours and reinforce intragroup relationships by arousing the awareness of stereotypes targeting members of low status.

#### Résumé

Le principal but de cette étude était d'examiner en quoi le niveau de sensibilisation à un stéréotype basé sur le genre dans des activités sportives modifiait l'effet de la menace du stéréotype sur le favoritisme intragroupe parmi des équipes mixtes jouant au basketball. Quatre classes d'éducation physique d'une école secondaire francophone ont été soumises à l'une de deux conditions : activation d'un stéréotype subtil ou d'un stéréotype criant. Dans chaque condition, des équipes de quatre, deux filles et deux garcons, ont été créées; le nombre de passes faites par chaque participant a été compté. Les filles ont fait preuve de favoritisme intragroupe quand le stéréotype criant a activé et du favoritisme hors groupe quand le stéréotype était subtil. Quant aux garçons, ils ont maintenu un favoritisme intragroupe, qui était plus fort dans la condition de stéréotype criant. L'effet de l'activation d'un stéréotype sur les relations au sein d'un groupe varie selon le niveau de sensibilisation au stéréotype. Il pourrait se révéler pertinent d'accroître la sensibilisation aux stéréotypes en ciblant les membres de moindre statut pour renforcer les relations intragroupes.

*Mots-clés* : activité physique, menace du stéréotype, groupe mixte, stéréotype de genre, favoritisme intragroupe.

#### References

Abrams, D., Eller, A., & Bryant, J. (2006). An age apart: The effects of intergenerational contact and stereotype threat on performance and intergroup bias. *Psychology and Aging*, 21, 691–702. http://dx.doi.org/10 .1037/0882-7974.21.4.691

Beilock, S. L., Jellison, W. A., Rydell, R. J., McConnell, A. R., & Carr, T. H. (2006). On the causal mechanisms of stereotype threat: Can skills that don't rely heavily on working memory still be threatened? *Personality and Social Psychology Bulletin*, 32, 1059–1071. http://dx.doi.org/10.1177/0146167206288489

Bois, J. E., Sarrazin, P. G., Brustad, R. J., Trouilloud, D. O., & Cury, F. (2002). Mothers' expectancies and young adolescents' perceived physical competence: A year-long study. *The Journal of Early Adolescence*, 22, 384–406. http://dx.doi.org/10.1177/027243102237189

Bonnot, V., & Croizet, J.-C. (2007). Stereotype internalization and women's math performance: The role of interference in working memory. *Journal of Experimental Social Psychology*, *43*, 857–866.

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Carothers, B. J., & Reis, H. T. (2013). Men and women are from Earth: Examining the latent structure of gender. *Journal of Personality and Social Psychology*, 104, 385–407. http://dx.doi.org/10.1037/a0030437

- Chalabaev, A., Sarrazin, P., Fontayne, P., Boiche, J., & Clement-Guillotin, C. (2013). The influence of sex stereotypes and gender roles on participation and performance in sport and exercise: Review and future directions. *Psychology of Sport and Exercise*, 14, 136–144. http://dx.doi.org/10.1016/j.psychsport.2012.10.005
- Chalabaev, A., Sarrazin, P., Stone, J., & Cury, F. (2008). Do achievement goals mediate stereotype threat? An investigation on females' soccer performance. *Journal of Sport & Exercise Psychology*, 30, 143–158.
- Clark, K., & Clark, M. (1939). The development of consciousness of self and the emergence of racial identification in Negro preschool children. *The Journal of Social Psychology*, 10, 591–599. http://dx.doi.org/10 .1080/00224545.1939.9713394
- Clément-Guillotin, C., & Fontayne, P. (2011). Situational malleability of gender schema: The case of the competitive sport context. Sex Roles, 64, 426–439. http://dx.doi.org/10.1007/s11199-010-9912-1
- Cohen, G. L., & Garcia, J. (2005). "I am us": Negative stereotypes as collective threats. *Journal of Personality and Social Psychology*, 89, 566–582. http://dx.doi.org/10.1037/0022-3514.89.4.566
- Dasgupta, N. (2004). Implicit ingroup favoritism, outgroup favoritism, and their behavioral manifestations. *Social Justice Research*, 17, 143–169. http://dx.doi.org/10.1023/B:SORE.0000027407.70241.15
- Dovidio, J. F., & Gaertner, S. L. (2010). Intergroup bias. In S. T. Fiske, D. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (5th ed., Vol. 2, pp. 1084–1121). New York, NY: Wiley. http://dx.doi.org/10.1002/9780470561119.socpsy002029
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. Annual Review of Psychology, 53, 161–186. http://dx.doi.org/10.1146/annurev.psych.53.100901.135228
- Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 357–411). Boston, MA: McGraw-Hill.
- Fontayne, P., Sarrazin, P., & Famose, J.-P. (2001). Les pratiques sportives des adolescents: Une différenciation selon le genre [The sporting practices of adolescents: A gender differentiation]. STAPS, 55, 23–37. http:// dx.doi.org/10.3917/sta.055.0023
- Fredricks, J. A., & Eccles, J. S. (2005). Family socialization, gender, and sport motivation and involvement. *Journal of Sport & Exercise Psychol*ogy, 27, 3–31.
- Gilenstam, K., Karp, S., & Henriksson-Larsén, K. (2008). Gender in ice hockey: Women in a male territory. Scandinavian Journal of Medicine & Science in Sports, 18, 235–249. http://dx.doi.org/10.1111/j.1600-0838 .2007.00665.x
- Grehaigne, J. F., Billard, M., & Laroche, J. Y. (1999). L'enseignement des jeux sportifs collectifs à l'école. Conception, construction, évaluation [The teaching of collective sports games at school. Design, construction, evaluation]. Brussels: De Boeck.
- Haslam, S. A. (2004). Psychology in organizations: The social identity approach (2nd ed.). Thousand Oaks, CA: Sage.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), Social psychology: Handbook of basic principles (pp. 133–168). New York, NY: Guilford.
- James, W. (1890). Principles of psychology. New York, NY: Dover Publications. http://dx.doi.org/10.1037/11059-000
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in systemjustification and the production of false consciousness. *British Journal of Social Psychology*, 33, 1–27. http://dx.doi.org/10.1111/j.2044-8309 .1994.tb01008.x
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and uncon-

- scious bolstering of the status quo. *Political Psychology*, 25, 881–919. http://dx.doi.org/10.1111/j.1467-9221.2004.00402.x
- Keller, J. (2002). Blatant stereotype threat and women's math performance: Self-handicapping as a strategic means to cope with obtrusive negative performance expectations. Sex Roles, 47, 193–198. http://dx.doi.org/10 .1023/A:1021003307511
- Keller, J. (2007). Stereotype threat in classroom settings: The interactive effect of domain identification, task difficulty and stereotype threat on female students' maths performance. *British Journal of Educational Psychology*, 77, 323–338. http://dx.doi.org/10.1348/000709906X113662
- Klein, O., Pohl, S., & Ndagijimana, C. (2007). The influence of intergroup comparisons on Africans' intelligence test performance in a job selection context. *The Journal of Psychology: Interdisciplinary and Applied*, 141, 453–468. http://dx.doi.org/10.3200/JRLP.141.5.453-468
- Kray, L. J., Thompson, L., & Galinsky, A. (2001). Battle of the sexes: Gender stereotype confirmation and reactance in negotiations. *Journal of Personality and Social Psychology*, 80, 942–958. http://dx.doi.org/10.1037/0022-3514.80.6.942
- Lesko, A. C., & Corpus, J. H. (2006). Discounting the difficult: How high math identified women respond to stereotype threat. Sex Roles, 54, 113–125. http://dx.doi.org/10.1007/s11199-005-8873-2
- Lewis, A. C., & Sherman, S. J. (2003). Hiring you makes me look bad: Social identity based reversals of the in-group favoritism effect. *Organizational Behavior and Human Decision Processes*, 90, 262–276. http://dx.doi.org/10.1016/S0749-5978(02)00538-1
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302–318. http://dx.doi.org/10.1177/0146167292183006
- Matteo, S. (1986). The effect of sex and gender-schematic processing on sport participation. Sex Roles, 15, 417–432. http://dx.doi.org/10.1007/ BF00287981
- McKown, C., & Weinstein, R. S. (2003). The development and consequences of stereotype consciousness in middle childhood. *Child Development*, 74, 498–515. http://dx.doi.org/10.1111/1467-8624.7402012
- Moskowitz, G. B., & Roman, R. J. (1992). Spontaneous trait inferences as self-generated primes: Implications for conscious social judgment. *Journal of Personality and Social Psychology*, 62, 728–738. http://dx.doi.org/10.1037/0022-3514.62.5.728
- Nussbaum, A. D., & Steele, C. M. (2007). Situational disengagement and persistence in the face of adversity. *Journal of Experimental Social Psychology*, 43, 127–134. http://dx.doi.org/10.1016/j.jesp.2005.12.007
- Olson, M. A., Crawford, M. T., & Devlin, W. (2009). Evidence for the underestimation of implicit in-group favoritism among low status groups. *Journal of Experimental Social Psychology*, 45, 1111–1116. http://dx.doi.org/10.1016/j.jesp.2009.06.021
- Oswald, D. L., & Harvey, R. D. (2000). Hostile environments, stereotype threat, and math performance among undergraduate women. Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues, 19, 338–356. http://dx.doi.org/10.1007/s12144-000-1025-5
- Pettigrew, T. F. (1998). Intergroup contact theory. Annual Review of Psychology, 49, 65–85. http://dx.doi.org/10.1146/annurev.psych.49.1.65
- Pickard Leszczynski, J., & Strough, J. (2008). The contextual specificity of masculinity and femininity in early adolescence. *Social Development*, 17, 720–736. http://dx.doi.org/10.1111/j.1467-9507.2007.00443.x
- Pronin, E., Steele, C., & Ross, L. (2004). Identity bifurcation in response to stereotype threat: Women and mathematics. *Journal of Experimental Social Psychology*, 40, 152–168. http://dx.doi.org/10.1016/S0022-1031(03)00088-X
- Schimel, J., Arndt, J., Banko, K. M., & Cook, A. (2004). Not all self-affirmations were created equal: The cognitive and social benefits of affirming the intrinsic (vs. extrinsic) self. *Social Cognition*, 22, 75–99. http://dx.doi.org/10.1521/soco.22.1.75.30984

- Schmader, T., Johns, M., & Barquissau, M. (2004). The costs of accepting gender differences: The role of stereotype endorsement in women's experience in the math domain. Sex Roles, 50, 835–850. http://dx.doi .org/10.1023/B:SERS.0000029101.74557.a0
- Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat effects on performance. *Psychological Review*, 115, 336–356. http://dx.doi.org/10.1037/0033-295X.115.2.336
- Sekaquaptewa, D., & Thompson, M. (2002). The differential effects of solo status on members of high- and low-status groups. *Personality and Social Psychology Bulletin*, 28, 694–707. http://dx.doi.org/10.1177/ 0146167202288013
- Shapiro, J. R., & Neuberg, S. L. (2007). From stereotype threat to stereotype threats: Implications of a multi-threat framework for causes, moderators, mediators, consequences, and interventions. *Personality and Social Psychology Review*, 11, 107–130. http://dx.doi.org/10.1177/1088868306294790
- Sidanius, J., & Pratto, F. (1999). Social dominance: An intergroup theory of social hierarchy and oppression. New York, NY: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139175043
- Smith, J. L., Sansone, C., & White, P. H. (2007). The stereotyped task engagement process: The role of interest and achievement motivation. *Journal of Educational Psychology*, 99, 99–114. http://dx.doi.org/10 .1037/0022-0663.99.1.99
- Smith, J. L., & White, P. H. (2002). An examination of implicitly activated, explicitly activated, and nullified stereotypes on mathematical performance: It's not just a woman's issue. Sex Roles, 47, 179–191. http://dx.doi.org/10.1023/A:1021051223441
- Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychol*ogy, 35, 4–28. http://dx.doi.org/10.1006/jesp.1998.1373

- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69, 797–811. http://dx.doi.org/10.1037/0022-3514 .69.5.797
- Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. *Advances* in Experimental Social Psychology, 34, 379–440. http://dx.doi.org/10 .1016/S0065-2601(02)80009-0
- Stone, J. (2002). Battling doubt by avoiding practice: The effect of stereotype threat on self-handicapping in white athletes. *Personality and Social Psychology Bulletin*, 28, 1667–1678. http://dx.doi.org/10.1177/ 014616702237648
- Stone, J., Lynch, C. I., Sjomeling, M., & Darley, J. M. (1999). Stereotype threat effects on black and white athletic performance. *Journal of Per*sonality and Social Psychology, 77, 1213–1227. http://dx.doi.org/10 .1037/0022-3514.77.6.1213
- Stone, J., & McWhinnie, C. (2008). Evidence that blatant versus subtle stereotype threat cues impact performance through dual processes. *Jour-nal of Experimental Social Psychology*, 44, 445–452. http://dx.doi.org/ 10.1016/j.jesp.2007.02.006
- Turner, J. C., & Reynolds, K. J. (2001). The social identity perspective in intergroup relations: Theories, themes, and controversies. In R. Brown & S. Gaertner (Eds.), *Blackwell handbook of social psychology: Intergroup* processes (pp. 133–152). Malden, MA: Blackwell.
- Wheeler, S. C., & Petty, R. E. (2001). The effects of stereotype activation on behavior: A review of possible mechanisms. *Psychological Bulletin*, 127, 797–826. http://dx.doi.org/10.1037/0033-2909.127.6.797

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