

RESEARCH ARTICLE

Men in pink collars: Stereotype threat and disengagement among male teachers and child protection workers

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Abstract

Male employees are a traditionally advantaged group, but when working in a female-dominated industry they may be vulnerable to negative gender stereotypes. The current research examined stereotype threat among men in two traditionally feminine jobs. Study 1 measured stereotype threat among primary school teachers and found that men experienced more stereotype threat than women, and that feelings of stereotype threat were related to negative job attitudes for men but not women. Study 2 manipulated the direction of social comparisons to elicit stereotype threat among male child protection workers. For men but not women, upward social comparisons with a successful feminine target elicited stereotype threat. In turn, stereotype threat was associated with intentions to resign and feeling expected to perform stereotypic masculine work tasks. These results suggest that despite their advantaged status, men in pink-collar jobs are susceptible to workplace stereotype threat.

John is a male child protection worker, and his job requires compassion and empathy when dealing with children living in terrible circumstances. Yet every day he struggles with stereotypes that he is less warm, nurturing, and caring—essentially, less able to do his job—because he is a man. Given the negative stereotypes they face, men like John who work in “pink-collar” jobs may be susceptible to stereotype threat, or the concern of confirming or being reduced to a negative stereotype about their group (Steele, 1997).

Stereotype Threat in the Workplace

Over the past two decades, a large body of research has investigated the consequences of stereotype threat. The majority of this research has focused on the acute performance decrements resulting from lab manipulations of stereotype threat (Spencer, Logel, & Davies, 2016). Indeed, the term stereotype threat has almost become synonymous with performance consequences. Nevertheless, from the beginning, Steele (1997) theorized that the impact of stereotype threat is broader than just the creation of acute performance deficits. Indeed, Steele defined stereotype threat as “the social psychological threat that arises when one is in a situation or doing something for which a negative stereotype about one’s group applies. This predicament threatens one with being negatively stereotyped, with being judged or treated stereotypically, or with the prospect of conforming to the stereotype... And for

those who identify with the domain to which the stereotype is relevant, this predicament can be self-threatening” (Steele, 1997, p. 614). This original definition is notable in that it says nothing about performance, and yet the majority of studies thus far have focused only on performance aspects of the theory.

Indeed, Steele (1997) theorized that in the short-term stereotype threat would lead to performance decrements, and in the long-term to disidentification or disengagement from the stereotyped domain. The possibility that stereotype threat might lead to disengagement is likely to be particularly important to organizations because work disengagement is associated with negative outcomes, such as more negative job attitudes (Riketta, 2008) and increased turnover (Harter, Schmidt, & Hayes, 2002). Consistent with Steele’s original theorizing, emerging research has demonstrated that stereotype threat does lead to disengagement from the stereotyped domain (e.g., Inzlicht & Schmader, 2012). Furthermore, recent research shows that the disengagement brought about by stereotype threat can be problematic in the workplace (for review and discussion, see Kalokerinos, von Hippel, & Zacher, 2014; Roberson & Kulik, 2007).

The relationship between stereotype threat and work disengagement has been demonstrated using various methodologies. Correlational research demonstrated that chronic feelings of stereotype threat were associated with more negative job attitudes among older workers (von Hippel, Kalokerinos, & Henry, 2013) and

women in male-dominated workplaces (von Hippel, Issa, Ma, & Stokes, 2011). Research using a daily diary methodology found that daily experiences of stereotype threat predicted psychological burnout in female engineers (Hall, Schmader, & Croft, 2015). Finally, von Hippel, Walsh, and Zouroudis (2011) manipulated stereotype threat in the workplace using social comparisons, and found that women in the stereotype threat condition separated their feminine identity from their work identity.

Thus, recent research suggests that stereotype threat is associated with disengagement in the workplace. However, to date, this line of research has focused only on members of groups that are traditionally disadvantaged in the workplace, such as women and older workers. It remains an open question whether members of traditionally advantaged groups will experience stereotype threat outside the lab, and if so, whether stereotype threat will lead to disengagement among such groups. Existing theory and research are somewhat conflicting with regard to this question; some research suggests that pink-collar men should be susceptible to stereotype threat, whereas other evidence suggests they may be protected against stereotype threat experiences. Below, we outline the logic and evidence suggesting why stereotype threat might be problematic for men in pink collars and why it might not.

Women's Work: Why Men Might Experience Stereotype Threat in Pink-Collar Professions

Organizations are rarely “gender neutral” (Acker, 1990). Pink-collar organizations are numerically skewed towards female employees, and the work is conceived in female-gendered terms (Acker, 1990; Sargent, 2005). For example, nurses, primary school teachers, and child protection workers are meant to be gentle and nurturing, traits that are stereotypic of women but not men. Stereotypes about men suggest they are unlikely to have the necessary traits to succeed in pink-collar jobs, in which such stereotypically female traits are thought to be critical for success. Not only are men assumed to lack these feminine traits (Fiske, Cuddy, Glick, & Xu, 2002; Heilman, 2001), but they are stereotyped as aggressive, dominant, and competitive (Cejka & Eagly, 1999), traits that are problematic in many pink-collar jobs. Stereotype threat might be particularly problematic for men in pink-collar jobs that involve working with young children, as men are perceived as less nurturing than women (Eagly, 1987; J. E. Williams & Best, 2000) and more likely to engage in child sexual abuse (cf. Bosson, Haymovitz, & Pinel, 2004). The existence of these stereotypes suggests that men working in pink-collar professions, particularly those professions involving work with children, may be susceptible to stereotype threat.

Consistent with this possibility, Steele (1997) theorized that stereotype threat would apply to members of all groups that are stereotyped in a

particular setting, regardless of whether that group was historically stigmatized. Laboratory research supports this claim, finding that members of traditionally advantaged groups also suffer the negative consequences of stereotype threat, although such research has thus far only investigated performance, and not disengagement consequences. For example, White men performed more poorly on math tasks when reminded of stereotypes that Asians are better at mathematics (Aronson *et al.*, 1999; Smith & White, 2002), and more poorly on a golf task when it was framed as diagnostic of “natural athletic ability” (Stone, Lynch, Sjomeling, & Darley, 1999). Additionally, and more closely aligned with the current research, men show stereotype threat effects when completing tasks in stereotypically feminine domains—making more errors on an emotion processing task (Leyens, Désert, Croizet, & Darcis, 2000) and on a test of social sensitivity (Koenig & Eagly, 2005). Thus, the results of laboratory research are in line with Steele’s original theorizing that being a target of a negative stereotype triggers stereotype threat, independent of historical group stigmatization. Nevertheless, stereotype threat among advantaged group members has never been investigated outside of the lab, and there is good reason to think that the privileged status afforded to pink-collar men in the real world may shield them from the experience of stereotype threat.

Riding the Glass Escalator: Why Men Might not Experience Stereotype Threat in Pink-Collar Professions

In a process that has been dubbed the “glass escalator,” men in female-dominated workplaces tend to rise quickly to the top (C. L. Williams, 1992, 2013), experiencing benefits as a result of their traditionally advantaged status. Indeed, men in female-dominated professions have higher wages (Budig, 2002; Hegewisch, Williams, & Harbin, 2012), receive better work opportunities (C. L. Williams, 1995), and are promoted more quickly (Maume, 1999) than their female colleagues. They are also over-represented in leadership roles (Cameron, 2001) and report that they benefit from assumptions that they are more “career-oriented” and will be better leaders than their female counterparts (Simpson, 2004). Despite being the targets of stereotypes in these settings, men in female-dominated fields seem to actually fare better than women. Thus, it may be that cues to their organizational value buffer men against stereotype threat and its negative consequences in the workplace. These cues are likely to be stronger in organizational environments, where they are chronically relevant, than they are in the laboratory. For these reasons, it is not clear whether stereotype threat is problematic for advantaged group members in the real world: an applied test of stereotype threat effects among advantaged group members is necessary to address this question.

The Current Research

The goal of the current research was to assess the disengagement consequences of stereotype threat among advantaged group members in an applied setting. In doing so, we test two aspects of Steele's (1997) stereotype threat theory that have been thus far understudied: disengagement consequences and stereotype threat among advantaged group members. In service of this goal, we examined the impact of stereotype threat on men in two female-dominated fields: primary school teaching and child protection. Both of these fields require employees to work closely with, and provide support to, young children, and as we note above, stereotype threat has the potential to be particularly relevant in such fields. In addition, child protection and primary school teaching are female-dominated professions in the United States (Bureau of Labor Statistics, 2011; Sakamoto, Anastas, McPhail, & Colarossi, 2008) and in Australia, where this study was conducted (Australian Bureau of Statistics, 2012; Healy & Lonnie, 2010). According to Steele's original theorizing, stereotype threat should lead to disengagement among male primary school teachers and child protection workers. In contrast, according to research on the glass escalator, male primary school teachers and child protection workers have other advantages in the workplace that are likely to offset the effect of gender stereotypes, and thus they should not show stereotype threat and resultant disengagement at work. Study 1 provides the first test of these competing hypotheses.

Study 1: Primary School Teachers

Study 1 was a correlational study designed to examine the experience of chronic stereotype threat among male and female primary school teachers. We examined whether men would report experiencing significantly more stereotype threat than their female colleagues. In addition, we also assessed whether stereotype threat would be associated with lower job satisfaction and affective commitment, and higher turnover intentions among men compared to women.

Method

Participants and procedure. Participants were recruited through a teaching association, via promotion of the study at a teachers' conference, and through emails to principals at primary schools around Australia. A total of 198 primary school teachers (59 men and 139 women; $M_{\text{age}} = 42.51$ years, $SD_{\text{age}} = 11.36$) completed an online survey. The average time participants had been teaching was 17.47 years ($SD = 11.99$). In exchange for their participation, teachers were offered entry into a draw to win one of several \$50 gift cards. Male teachers constitute only 19.3% of the primary teaching workforce in Australia (Australian Bureau of Statistics, 2012), and so to enable a test of our hypotheses, we over-sampled male teachers. The

study received ethical clearance from the School of Psychology Ethics Committee at the University of Queensland.

Measures. Unless otherwise indicated, in both studies participants responded to survey items using a 5-point scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*). The survey was programmed so that references to gender in the scales matched participants' gender. Stereotype threat ($\alpha = .91$) was measured using a 5-item scale from von Hippel, Issa, et al. (2011), adapted for a teaching context (e.g. "Some of my colleagues feel that I'm limited as a teacher because I'm a man/woman"). Job satisfaction ($\alpha = .83$) was measured with a 5-item version of Brayfield and Rothe's (1951) scale designed to measure overall job satisfaction (e.g. "Most days I am enthusiastic about my work"). Affective commitment ($\alpha = .74$) to the teaching profession was assessed with 8 items from Allen and Meyer (1990) adapted to the teaching context (e.g., "I would be very happy to spend the rest of my career as a teacher"). Turnover intentions ($r = .90$) was measured with a 2-item scale by Boroff and Lewin (1997), adapted to measure intentions to leave the teaching profession (e.g. "I am seriously considering quitting teaching for an alternative profession").

Control variables. We also include tenure in teaching and age as control variables. These variables may be negatively related to stereotype threat, particularly among men: men who are prone to stereotype threat, or particularly bothered by experiences of stereotype threat might leave pink-collar fields earlier in their career. Thus, older men with longer tenure in teaching may be those men who have either experienced less stereotype threat in their career or have developed more effective coping strategies. Additionally, both age and tenure are correlated with organizational status and previous work has demonstrated that organizational status is associated with lower stereotype threat (von Hippel et al., 2013). Given the research literature on the glass escalator, it seems possible that higher status may buffer men against stereotype threat.

Results

Table 1 provides descriptive statistics and bivariate correlations for all measures separately for men and women. An independent-groups *t*-test showed that men reported significantly more stereotype threat than women, $t(76.75) = 4.73$, $p < .001$,¹ Cohen's $d = 0.89$, 95% confidence interval (CI) of the difference [.33,.81]. There were no significant gender differences in job satisfaction, $t(196) = 0.31$, $p = .759$, Cohen's

¹As assumptions regarding homogeneity of variance were not met (Levene's $F(196) = 19.93$, $p < .001$), a conservative *t*-statistic (which does not use the pooled statistic for the error term) is reported, and the degrees of freedom are adjusted using the Welch-Satterthwaite method.

Table 1. Summary of intercorrelations, means and standard deviations of study variables for male and female teachers in Study 1

Variable	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
Male teachers (<i>N</i> = 59)								
1 Stereotype threat	—	-.29***	-.39***	.25	-.17	-.29*	1.90	0.86
2 Job satisfaction		—	.70***	-.50***	-.03	-.05	4.19	0.67
3 Affective commitment			—	-.76***	.15	.13	3.78	0.71
4 Turnover intentions				—	-.25	-.16	2.01	1.26
5 Age					—	.85***	43.73	10.85
6 Tenure in teaching						—	17.29	12.09
Female teachers (<i>N</i> = 139)								
1 Stereotype threat	—	-.10	-.16	.15	-.08	-.05	1.33	0.52
2 Job satisfaction		—	.72***	-.65***	.03	.01	4.16	0.58
3 Affective commitment			—	-.71***	.05	.12	3.96	0.62
4 Turnover intentions				—	-.04	-.09	1.90	1.05
5 Age					—	.89***	41.99	11.58
6 Tenure in teaching						—	17.55	11.99

p* < .05.*p* < .01.****p* < .001.

$d = 0.05$, 95% CI [-0.16, .22], affective commitment, $t(196) = 1.79$, $p = .076$, Cohen's $d = 0.28$, 95% CI [-0.38, .02], or turnover intentions, $t(196) = 0.63$, $p = .529$, Cohen's $d = 0.10$, 95% CI [-0.23, .45].

As demonstrated in Table 1, among men, but not women, tenure in teaching was significantly negatively associated with stereotype threat. For men, stereotype threat was negatively associated with job satisfaction and affective commitment, but not turnover intentions. However, when controlling for tenure and age, stereotype threat was positively related to turnover intentions among men ($\beta = .27$, $p = .047$), demonstrating that men who experience stereotype threat have higher intentions to quit the teaching profession. The relationships between stereotype threat and job satisfaction ($\beta = -.35$, $p = .012$) and commitment ($\beta = -.40$, $p = .003$) were unchanged when controlling for tenure and age. For women, there were no significant associations between stereotype threat and the study variables. When controlling for tenure and age, the relationship between stereotype threat and job satisfaction remained non-significant, $\beta = -.09$, $p = .274$, but there were marginally significant relationships between stereotype threat and commitment: $\beta = -.16$, $p = .059$, and turnover intentions: $\beta = .15$, $p = .072$.

To examine whether gender moderated the relationship between stereotype threat and the outcome variables, we conducted moderated multiple regression analyses, investigating whether the interaction between stereotype threat and gender predicted the three outcome variables separately. This interaction did not significantly predict job satisfaction, $\beta = .09$, $p = .382$, affective commitment, $\beta = .09$, $p = .353$, or turnover intentions, $\beta = -.03$, $p = .782$. Post-hoc power analyses using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) suggested we had good power to detect small to medium effects of the interaction on job satisfaction (95%), commitment (96%), although our power to detect the effect on turnover was low (52%). However, we also had unequal sample sizes across the moderating variable, which substantially lowers the power to detect

an interaction (Aguinis & Stone-Romero, 1997; Hsu 1993), and it has also been noted that power to detect an interaction in a field study is much lower than in traditional lab studies (McClelland & Judd, 1993). These power issues, in combination with the observed zero-order correlations between stereotype threat and our outcome variables for men, meant that we were reluctant to conclude based on these results that there was no effect of the gender \times stereotype threat interaction.

Discussion

Study 1 provides tentative evidence of an association between stereotype threat and workplace attitudes for men in pink-collar jobs. Male teachers reported more stereotype threat than female teachers, and stereotype threat was associated with lower job satisfaction and commitment for men, but not women. These data suggest that men in pink-collar professions experience stereotype threat, and these experiences are associated with disengagement from work. Nonetheless, the interaction between stereotype threat and gender did not significantly predict any of the outcome variables, the mean level of stereotype threat for men was quite low (below the scale mid-point), and the relationship between stereotype threat and intentions to quit was only significant when controlling for age and tenure. These findings suggest that the experience of stereotype threat for men may not be as pervasively negative as they are for those in traditionally disadvantaged groups, where stereotype threat has been shown to predict job attitudes as well as intentions to quit (von Hippel, Issa, et al., 2011; von Hippel et al., 2013). Because this study was somewhat underpowered to detect a gender by stereotype threat interaction, and was also cross-sectional and correlational, it provides suggestive evidence but does not allow clear conclusions to be drawn.

It is also worth noting the relatively long mean level of tenure in the field of teaching in this sample. This lengthy tenure may limit the conclusions we can draw

with these data, because we are sampling participants who have remained engaged with the field over a long time. Indeed, as tenure increased reported levels of stereotype threat decreased. As a result, we are not likely to be capturing male teachers who disengaged earlier in their career, perhaps because of chronic stereotype threat, or poorer coping strategies to deal with stereotype threatening experiences. Hence, in testing this particular sample, we may be under-estimating the level of stereotype threat among male teachers, and the consequences of such experiences.

Study 2: Child Protection Workers

To address these shortcomings, in Study 2, we conducted an experiment with a larger sample of child protection workers. The child protection role focuses on understanding children and families, requires good communication skills, and sensitive, communal traits (Department of Communities, Child Safety, and Disability Services, 2015)—qualities and abilities traditionally associated with feminine stereotypes. Child protection typically involves working with young, at-risk children, and thus, there is likely to be an even stronger perception that workers should be stereotypically feminine (e.g., warm, nurturing). Consistent with this possibility, there is a lower percentage of men in child protection than there is in primary school teaching (Bureau of Labor Statistics, 2011). As a consequence, men in child protection are particularly likely to be one of the only males in their work group, experiencing “solo status”, which is linked with stereotype threat experiences (Sekaquaptewa & Thompson, 2003). Thus, assessment of stereotype threat among male child protection workers rather than primary school teaching should provide a clearer test of the possibility that men in pink-collar professions might be susceptible to stereotype threat.

Importantly, Study 2 addresses each of the methodological concerns with Study 1. First, Study 2 is experimental, allowing us to better understand the potential causal role of stereotype threat. Second, Study 1 was somewhat under-powered for male teachers and had unequal sample sizes across gender groups, but Study 2 is well-powered for male child-protection workers, and there are almost equal numbers of men and women. Third, the sample tested in Study 1 had a relatively high mean tenure in the field, but the sample tested in Study 2 has a lower mean tenure as well as a broader tenure range than Study 1, including men across the career spectrum. For all these reasons, Study 2 enabled a clearer test of the potential role of stereotype threat in disengagement of men in pink collars.

We sought to determine whether stereotype threat plays a causal role in disengagement by manipulating social comparisons in a manner that has been shown to induce stereotype threat among women in male-dominated fields (von Hippel, Walsh, & Zouroudis, 2011). In collaboration with a child protection worker, we designed a scenario typical of the kind of situations that child protection

workers encounter. Participants read about a caseworker who handled a delicate work situation involving a child in either a successful or unsuccessful manner. The situation was identical across conditions, with the only difference between the two conditions being the way that the situation was handled, and the resultant success of the outcome. After reading this scenario, participants were asked how well they believed they would have handled the situation in comparison to the caseworker. If male child protection workers are susceptible to stereotype threat, then engaging in an upward social comparison with a successful caseworker who handled the situation in a sensitive fashion should elicit feelings of stereotype threat. As a consequence, the social comparison scenario provides an ethical and ecologically valid manipulation of stereotype threat, especially as these types of social comparisons are a commonplace occurrence in the workplace (von Hippel, Issa, *et al.*, 2011).

To assess whether the social comparison manipulation successfully induced feelings of stereotype threat, after the manipulation, participants completed a scale measuring stereotype threat. We then tested whether measured stereotype threat mediated the relationship between the social comparison manipulation and the dependent variables. The primary dependent variable of interest was disengagement in the form of turnover intentions. The child welfare sector has long suffered from a high worker turnover rate, and substantial empirical work has been devoted to the retention of child protection workers (APHS, 2005; Webb & Carpenter, 2012). As a consequence, work disengagement expressed in terms of turnover intentions is particularly relevant to child protection workers.

Based on the results of Study 1, we expected stereotype threat to be problematic for male, but not female, child protection workers. Thus, we hypothesized that men, but not women, would report experiencing stereotype threat as a result of the social comparison manipulation. We also expected that men, but not women, in the upward social comparison condition would report higher turnover intentions, and that the relationship between the social comparison condition and turnover intentions would be mediated by feelings of stereotype threat. In contrast, according to the competing hypothesis that stereotype threat is not problematic for male child protection workers, we would expect to see no difference between men and women in this study.

Finally, we also examined feelings among men in pink collars that they were expected to engage in masculine job-relevant tasks, such as dealing with angry and potentially violent clients. Men in pink-collar industries report feeling that they are expected to perform these more masculine work tasks when they arise (e.g., Sargent, 2005). We hypothesized that stereotype-based expectations are more salient to men experiencing stereotype threat, and thus, men (but not women) in the upward social comparison condition will report that they feel they are asked to engage in such behaviors more often, and this relationship should be mediated by feelings of stereotype threat.

Method

Participants. Participants were recruited for this study through emails sent by union representatives and the researchers to child protection offices across Australia. The emails asked frontline child protection workers to complete a brief online survey about their workplace experiences in exchange for a chance to win one of several gift vouchers. Because men composed a minority of the child protection workforce, to enable a test of our predictions, we oversampled men. The final sample comprised 541 Australian child protection workers (266 men; 275 women).² The average age of the sample was 38.39 years ($SD=12.82$) with an average tenure of 6.79 years ($SD=7.31$) in child protection. The study received ethical clearance from the School of Psychology Ethics Committee at the University of Queensland.

Procedure. Participants were randomly assigned to the downward ($N=265$, 129 men) or upward social comparison conditions ($N=276$, 137 men). In both conditions, participants were asked to read a hypothetical scenario about a caseworker and support worker, whose genders were not identified, returning from a supervised visit with a 5-year-old girl. In the scenario the girl begins singing a song about male and female body parts, and mentions that her uncle taught her the song and showed her the different body parts. In the upward social comparison condition, the case worker deals with the situation in a sensitive and successful manner, thus potentially leading male participants to engage in a stereotype threatening upward social comparison (see von Hippel, Walsh, & Zouroudis, 2011; Marx & Roman, 2002). In the control condition, the caseworker handled the situation in a way that was less sensitive and largely unsuccessful, and thus unlikely to lead to a stereotype threatening social comparison. After reading one of the two scenarios, the participants completed the following measures.

Perceived performance of the caseworker. To ensure the manipulation of performance was successful, participants were asked, "In your opinion, how did the caseworker handle the situation?" (1 = *Very Poorly* to 5 = *Very Well*).

Social comparison. To ensure participants engaged in social comparison with the caseworker, participants were asked "Compared to this caseworker, how do you think you would have handled this situation?" (1 = *Much Worse* to 5 = *Much Better*).

Stereotype threat. To assess whether the social comparison manipulation induced stereotype threat, participants responded to the 5-item scale ($\alpha = .88$) from

²518 participants completed the survey in full, meaning that 23 participants dropped out over the course of the survey, or chose not to complete certain measures. We use pairwise deletion in all analyses.

Study 3 of von Hippel, Issa, et al. (2011; e.g., "Sometimes I worry that my behaviour will cause my colleagues to think that stereotypes about [men/women] are true").

Turnover intentions. Intention to resign was assessed with a 2-item scale ($r = .90$) from Boroff and Lewin (1997, e.g. "I am seriously considering quitting this job for an alternative employer").

Feelings of being expected to engage in masculine work tasks. In consultation with front-line child protection workers, we developed a three-item scale that assessed the extent to which participants felt called upon by others to perform masculine behaviors at work ("When an angry client is in the foyer, others look to me to defuse the situation", "People come to me when there is a possibility of a dangerous client", "People come to me when there's a sticky situation"; $\alpha = .75$). Participants responded on a 4-point scale (1 = *Not at All* to 4 = *All of the Time*) and also had the option to respond with "Does not apply" (scored as missing data) if they felt that the behavior was not relevant to them (2.4% of respondents chose the "Does not apply" option, and thus have missing data for this scale).³

Results

Table 2 provides the means, standard deviations, and inter-correlations between the study variables in the full sample.

Manipulation checks. An independent-groups *t*-test on the perceived performance of the caseworker revealed that participants in the upward comparison condition felt the caseworker handled the situation better ($M = 3.63$, $SD = 1.01$) than did participants in the downward comparison condition ($M = 1.88$, $SD = 0.76$), $t(510.61) = 22.91$, $p < .001$,⁴ Cohen's $d = 1.96$, 95% CI of the difference between means [1.60, 1.90]. This finding suggests that the performance of the target was manipulated as intended.

Participants' responses to the item assessing how well they thought they would perform compared to the caseworker were then analyzed by condition and gender, in a 2×2 between-subjects ANOVA. This

³We also included a 3-item scale ($\alpha = .82$) assessing feelings of being judged when engaging in feminine work tasks. Although our intent was to separate feelings of being stereotyped in particular domains from the threat of the stereotype, on reflection, the items included in this feminine scale were not conceptually distinct from stereotype threat. As a result, we chose to remove these data from this paper. The results on this variable echo the pattern of results with measured stereotype threat: the full results with this scale are available from the authors upon request.

⁴As assumptions regarding homogeneity of variance were not met (Levene's $F(538) = 33.51$, $p < .001$), a conservative *t*-statistic (which does not use the pooled statistic for the error term) is reported, and the degrees of freedom are adjusted using the Welch-Satterthwaite method.

Table 2. Summary of inter-correlations, means, and standard deviations of Study 2 variables

	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
1 Stereotype threat	—	-.27***	.19***	-.07	-.38***	-.40***	2.39	0.84
2 Social comparison		—	-.02	-.01	.12**	.17***	3.62	0.90
3 Feelings of being expected to engage in masculine work tasks			—	-.02	-.12**	-.10*	2.59	0.89
4 Turnover intentions				—	.10*	.05	2.64	1.15
5 Age					—	.65***	38.39	12.82
6 Tenure in child protection						—	6.79	7.31

* $p < .05$,** $p < .01$,*** $p < .001$.

analysis revealed a main effect of comparison condition, $F(1,536) = 426.88$, $p < .001$, $\eta_p^2 = .44$ (upward comparison: $M = 3.07$, $SD = 0.78$; downward comparison: $M = 4.19$, $SD = 0.61$), and a main effect of gender, $F(1,536) = 32.51$, $p < .001$, $\eta_p^2 = .06$ (men: $M = 3.45$, $SD = 1.03$; women: $M = 3.78$, $SD = 0.69$), which were qualified by a gender \times social comparison condition interaction, $F(1,536) = 90.03$, $p < .001$, $\eta_p^2 = .14$. Simple effects analyses revealed that in the downward comparison condition, male caseworkers felt they would do comparatively better ($M = 4.29$, $SD = 0.55$) than female caseworkers did ($M = 4.09$, $SD = 0.64$), $F(1,536) = 7.01$, $p = .008$, $\eta_p^2 = .01$, 95% CI [0.05, 0.36]. In contrast, in the upward comparison condition, female caseworkers felt they would do comparatively better ($M = 3.48$, $SD = 0.62$) than male caseworkers did ($M = 2.66$, $SD = 0.70$), $F(1,536) = 118.02$, $p < .001$, $\eta_p^2 = .18$, 95% CI [-0.97, -0.68].

To get a clearer sense of the effect of this manipulation on participants' comparative evaluations of how they thought they would perform, we conducted a series of one-sample t -tests to compare their responses to this item to the scale mid-point of 3 (which corresponds to a label indicating that participants thought they would perform equally well as the caseworker in the scenario). In the downward comparison condition, both men ($M = 4.29$, $SD = 0.55$), $t(129) = 26.70$, $p < .001$, 95% CI [1.20, 1.39], and women ($M = 4.09$, $SD = 0.64$), $t(135) = 19.76$, $p < .001$, 95% CI [0.98, 1.20], scored significantly higher than the scale mid-point, indicating that both genders believed they would outperform the target. In the upward comparison condition, women scored higher than the scale mid-point ($M = 3.48$, $SD = 0.62$), $t(139) = 9.20$, $p < .001$, 95% CI [0.38, 0.59], whereas men scored lower than the scale mid-point ($M = 2.66$, $SD = 0.70$), $t = 5.73$, $p < .001$, 95% CI [-0.46, -0.22]. Thus women thought they would perform better than the successful caseworker, but men thought they would perform worse than the successful caseworker. These findings indicate that the social comparison manipulation yielded the expected results.

Measured stereotype threat. A 2×2 ANOVA on feelings of stereotype threat revealed significant main effects of comparison condition ($M_{\text{downward}} = 2.33$, $SD = 0.82$ vs. $M_{\text{upward}} = 2.46$, $SD = 0.86$), $F(1,535) = 5.13$, $p = .024$, $\eta_p^2 = .01$, and gender ($M_{\text{men}} = 2.91$,

$SD = 0.64$ vs. $M_{\text{women}} = 1.89$, $SD = 0.69$), $F(1,535) = 327.53$, $p < .001$, $\eta_p^2 = .38$,⁵ which were qualified by a significant interaction, $F(1,535) = 7.09$, $p < .001$, $\eta_p^2 = .03$. As depicted in Figure 1, simple effects analyses revealed no effect of social comparison condition on feelings of stereotype threat among female caseworkers, $F(1,535) = 1.64$, $p = .201$, $\eta_p^2 = .003$, 95% CI [-0.26, 0.05], but male caseworkers in the upward comparison condition experienced greater stereotype threat ($M = 3.09$, $SD = 0.56$) than male caseworkers in the downward comparison condition ($M = 2.73$, $SD = 0.68$), $F(1,535) = 8.49$, $p < .001$, $\eta_p^2 = .04$, 95% CI [0.20, 0.52]. These data suggest that the upward social comparison condition elicited stereotype threat only in men.

Primary analyses

Turnover intentions. A 2×2 ANOVA on turnover intentions revealed no main effect of social comparison condition, $F(1,514) = 1.70$, $p = .194$, $\eta_p^2 = .003$, an effect of gender ($M_{\text{men}} = 2.35$, $SD = 0.92$ vs. $M_{\text{women}} = 2.95$, $SD = 1.29$), $F(1,514) = 38.27$, $p < .001$, $\eta_p^2 = .07$, and most importantly, an interaction between gender and social comparison condition, $F(1,514) = 4.06$, $p = .044$, $\eta_p^2 = .01$. As can be seen in Figure 2, among female caseworkers there was no effect of social comparison condition on turnover intentions, $F(1,514) = 0.25$, $p = .617$, $\eta_p^2 = .00$, 95% CI [-0.34, 0.20]. In contrast, male caseworkers in the upward comparison condition reported higher turnover intentions than those in the downward comparison condition, $F(1,514) = 5.58$, $p = .018$, $\eta_p^2 = .01$, 95% CI [0.06, 0.59].

To examine whether feelings of stereotype threat mediated the interaction of social comparison condition and gender on turnover intentions, a bootstrapped moderated mediation analysis with 10 000 resamples was conducted (using model 8 of the PROCESS macro; Hayes, 2008). This analysis revealed a significant indirect effect of the comparison condition \times gender interaction on turnover intentions via feelings of stereotype threat ($IE = .08$, $SE = .05$, 95% CI: .01, .19). The conditional indirect effect was significant for men ($IE = .07$, $SE = .03$, 95% CI: .01, .15), but not for women ($IE = -.02$, $SE = .02$, 95% CI: -.07, .01), indicating that

⁵Controlling for tenure and age in a 2×2 ANCOVA did not substantively change these results, the results for turnover intentions, or the results for feelings of being expected to engage in masculine work tasks.

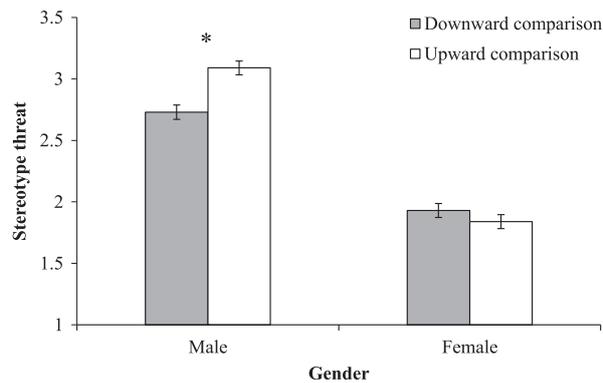


Fig. 1: Stereotype threat as a function of social comparison condition and gender in Study 2. Error bars represent standard errors

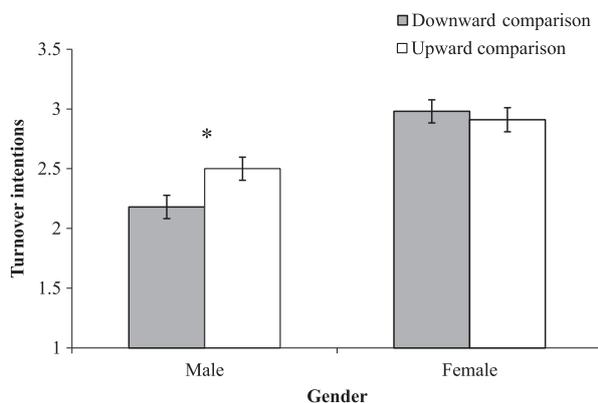


Fig. 2: Turnover intentions as a function of social comparison condition and gender in Study 2. Error bars represent standard errors

stereotype threat mediated the relationship between the social comparison manipulation and turnover intentions for male participants only. When measured stereotype threat was included in the model, it significantly predicted turnover intentions, $b = 0.18$, $t(515) = 2.41$, $p = .016$, and the direct effect of the comparison condition \times gender interaction on turnover intentions was no longer significant, $b = 0.33$, $t(515) = 1.66$, $p = .098$. Thus, engaging in an upward social comparison induced stereotype threat for men, which in turn was associated with increased turnover intentions.

Feelings of being expected to engage in masculine work tasks. A 2×2 ANOVA on feelings of being expected to engage in masculine work tasks revealed no main effect of social comparison condition, $F(1,524) = 2.49$, $p = .115$, $\eta_p^2 = .01$, a main effect of gender ($M_{men} = 2.33$, $SD = 0.52$, $M_{women} = 2.16$, $SD = 0.47$), $F(1,524) = 15.00$, $p < .001$, $\eta_p^2 = .03$, and an interaction between social comparison condition and gender, $F(1,524) = 4.44$, $p = .036$, $\eta_p^2 = .01$. As depicted in Figure 3, female caseworkers showed no significant effect of social comparison condition, $F(1,524) = 0.14$, $p = .709$, $\eta_p^2 = .00$, 95% CI $[-0.10, 0.14]$. In contrast, male caseworkers in the upward comparison condition recalled being called upon to perform stereotypically masculine work tasks ($M = 2.41$, $SD = 0.53$) more often than those in the downward

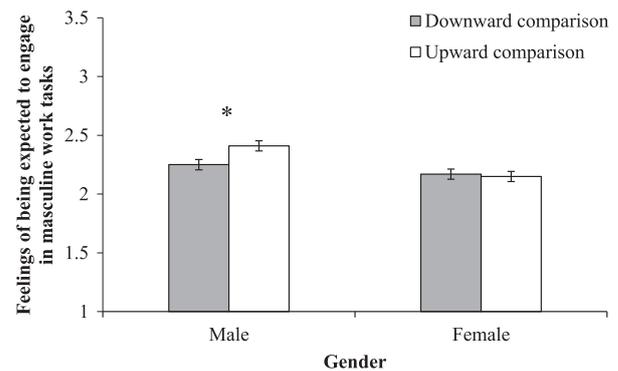


Fig. 3: Feelings of being expected to engage in masculine work tasks as a function of social comparison condition and gender. Error bars represent standard errors

comparison condition ($M = 2.25$, $SD = 0.53$), $F(1,524) = 6.79$, $p = .009$, $\eta_p^2 = .01$, 95% CI $[0.04, 0.28]$.

To examine whether stereotype threat mediated this effect, a bootstrapped moderated mediation analysis with 10 000 resamples was conducted (using model 8 of the PROCESS macro as above). A significant indirect effect of the gender \times social comparison condition interaction emerged on expectations of engaging in masculine behaviors via stereotype threat ($IE = .05$, $SE = .02$, 95% CI: .02, .11). The conditional indirect effects were significant for men ($IE = .04$, $SE = .02$, 95% CI: .02, .08), but not for women ($IE = -.01$, $SE = .01$, 95% CI: $-.02, .003$). When stereotype threat was included in the model, it predicted greater recollections of being called upon to perform stereotypic masculine work tasks, $b = 0.12$, $t(527) = 3.57$, $p < .001$, and the direct effect of the social comparison condition \times gender interaction on expectations of engaging in masculine work tasks was no longer significant, $b = 0.13$, $t(527) = 1.47$, $p = .143$.

General Discussion

Male employees are an advantaged group in the workplace, but men who work in female-dominated “pink-collar” jobs suffer from negative stereotypes about their suitability for these professions. Across two studies, we found that men in traditionally female-dominated professions were susceptible to stereotype threat. In Study 1, male primary school teachers reported significantly more stereotype threat than their female counterparts. Stereotype threat was also more problematic for male teachers: Among men stereotype threat was related to lower job satisfaction and commitment, but this pattern of relationships did not hold for women. There was no significant stereotype threat by gender interaction on job attitudes, but highly unequal sample sizes across the moderating variable (Aguinis & Stone-Romero, 1997) and the field setting of the study (McClelland & Judd, 1993) meant that we lacked power to detect such an interaction. Thus, Study 1 provided tentative evidence that stereotype threat existed in male pink-collar employees, and

that it might be problematic, but did not allow us to draw strong conclusions.

Study 2 addressed the weaknesses of Study 1 by manipulating stereotype threat among a sample of child protection workers in a well-powered field experiment. We induced stereotype threat by having child protection workers engage in an upward social comparison with a target who was successful at work because of a sensitive approach to the problem. Consistent with prior research demonstrating that upward social comparison with outgroup colleagues is associated with stereotype threat (von Hippel, Issa, *et al.*, 2011; von Hippel, Walsh, & Zouroudis, 2011), Study 2 revealed that male child protection workers felt stereotype threat when they engaged in an upward social comparison with another caseworker. Furthermore, upward social comparison led to increased turnover intentions among men only, and this effect was mediated by the experience of stereotype threat. Finally, male child protection workers also felt they were expected to perform masculine work tasks. This relationship was more pronounced for men in the upward social comparison condition, and was mediated by stereotype threat.

The current results revealed that despite the fact that men in female-dominated fields are paid better (Hegewisch *et al.*, 2012) and advance more rapidly (Maume, 1999) than their female counterparts, they nonetheless are susceptible to stereotype threat and its negative consequences. This study provides the first real-world demonstration that stereotype threat applies not only to traditionally marginalized groups, but also to advantaged groups, providing strong support for Steele's (1997) theory. We also add to the growing body of research demonstrating the problematic disengagement consequences of stereotype threat at work (Kalokerinos *et al.*, 2014), providing the first evidence of these disengagement consequences among advantaged group members.

Our results suggest that stereotype threat is problematic for pink-collar men. It is worth noting, however, that the effect of stereotype threat in these studies is smaller than is typically observed among traditionally disadvantaged groups, and the mean levels of stereotype threat experienced by men were low. In addition, although there were significant effects of the social comparison manipulation on our dependent variables through measured stereotype threat in Study 2, the effects were relatively small in size. Thus, there is also some support for the competing hypothesis that male employees in female-dominated fields are somewhat protected by the career advantages they receive. Indeed, in both social work and primary school teaching, men are disproportionately represented at the managerial level (Addi-Racah & Ayalon, 2002; McLean, 2003). Perhaps men in pink-collar professions are buffered against stereotype threat to some degree through their aspirations to achieve these male-dominated managerial roles, about which there are positive masculine stereotypes. Men may also have been somewhat protected from stereotype threat by the knowledge that

even in pink-collar industries they are awarded higher status than their female counterparts. Status serves as a buffer to experiences of stereotype threat in the workplace (von Hippel *et al.*, 2013), and laboratory-based research suggests that stereotype threat effects may occur in part because of the need to maintain status (Josephs, Newman, Brown, & Beer, 2003).

In this vein, it is also worth noting that in Study 2, but not in Study 1, there was a main effect of gender on turnover intentions, such that women reported greater intentions to quit. One potential explanation for this finding is that men are "riding the glass escalator" in child protection work, that is, they are rising through the organizational ranks more quickly. Hence, men may have their sights on managerial roles within the organization, and see their current role as a frontline child protection worker as a necessary step in achieving this goal. In contrast, women are less likely to be promoted out of these frontline roles, and with no change in sight, might then be more prone to burnout. Relatedly, because of their higher status, men are often protected from the emotional labor involved in service jobs like child protection (Cottingham, Erickson, & Diefendorff, 2015). Emotional labor is linked with both turnover intentions and actual turnover (Chau, Dahling, Levy, & Diefendorff, 2009), and thus increased emotional labor may explain increased turnover intentions among women. These explanations are necessarily speculative, and measurement of attitudes and experiences relevant to the glass escalator phenomenon will be necessary in future work.

Alternatively, the current experiment may be underestimating the problems posed by stereotype threat for men in traditionally feminine jobs. This research examined currently employed pink-collar workers, who might have remained in the profession precisely because they possess considerable resilience to stereotype threat. Men who find negative gender stereotypes threatening may never consider traditional female occupations, or may drop out during training when stereotype threat is first encountered. The fact that stereotype threat was negatively correlated with tenure among men in both studies provides some supportive evidence for this possibility, indicating that those who experience stereotype threat might disengage from the workplace early, and those who remain might be less prone to stereotype threat or might have developed successful coping strategies. Future research should examine early-career employees, or men undergoing training in female-dominated professions, to determine if there are differences in the levels and consequences of stereotype threat for these men, and if stereotype threat is associated with early drop out.

Limitations and Future Directions

In the introduction, we noted that men in pink-collar jobs involving work with children face not only stereotypes about being less warm and more aggressive than women (Fiske *et al.*, 2002; Heilman, 2001) but also face

male-relevant concerns about being perceived as more likely to engage in child sexual abuse (cf. Bosson *et al.*, 2004). Thus, there are two types of potentially problematic stereotypes that may threaten male workers. In Study 2, our manipulation involved possible child molestation, perhaps making stereotypes surrounding child abuse particularly salient. Although such a possibility may have enhanced the power of our manipulation, the content of the situation (i.e., possible child molestation) was present in both conditions. The scenarios only differed in how the child protection worker handled the situation. Thus, if a concern about being perceived as more likely to molest children was activated in our participants, it would be activated to the same degree in the upward and downward social comparison conditions. Additionally, dealing with potential cases of child molestation and abuse are a key part of child protection workers' jobs, and thus this situation had high external validity. Nonetheless, in future work, it will be important to disentangle the different types of stereotypes faced by men working with children: it may be that child abuse stereotypes are more problematic to these men than stereotypes regarding warmth and aggression, but such a suggestion is necessarily speculative.

Additionally, it is important to note that in Study 2, we manipulated social comparisons to induce feelings of stereotype threat. Of course, social comparisons may also affect other psychological states, such as changes in self-evaluations (Collins, 1996) or affective states (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990). Hence, the results we report here might be mediated through other processes in addition to stereotype threat. Nonetheless, the mediational analyses revealed that upward social comparison triggered stereotype threat in men, and stereotype threat was a mediator of the effects of the social comparison manipulation. Thus, stereotype threat seems to be an important process variable in these effects, even if it may not be the only one.

Throughout this paper, we have referred to the concept of stereotype threat more generally, but there may be different types of stereotype threat, and these different types of stereotype threat may be associated with different consequences (Shapiro & Neuberg, 2007). Shapiro and Neuberg (2007) propose that stereotype threat can be parsed along two different dimensions: the target of the threat (the self or the group) and the source of the threat (the self, the outgroup, or the ingroup). The scale used in the current studies was not designed to distinguish between different types of threat. It is possible that some types of threat are more problematic than others for pink-collar men. Nevertheless, it is also important to note that previous research in an organizational context was unable to distinguish between stereotype threat targeting the self versus targeting the group (von Hippel, Sekaquaptewa, & McFarlane, 2015), and thus, it might be that these sources of threat are difficult to empirically disentangle in a field setting.

Finally, although research has established a number of mediators of stereotype threat effects (for a review

see Pennington, Heim, Levy, & Larkin, 2016), we did not examine any process variables in the current studies. In the review of Pennington *et al.* (2016), the mediators of stereotype threat are grouped into three broad categories: affective/subjective (e.g., anxiety), cognitive (e.g., working memory), and motivational (e.g., effort). The mediators of stereotype threat effects are likely to depend on whether the outcome is performance or disengagement. For example, there is strong support that stereotype threat disrupts working memory and increases cognitive load (Pennington *et al.*, 2016), both of which result in fewer resources to devote to the task at hand. It is unclear how mediators such as these would explain the relationship between stereotype threat and disengagement consequences, such as increased intentions to quit one's job. Consistent with the notion that the mediators of stereotype threat will differ depending on the outcome measured, von Hippel, Issa, *et al.* (2011) found that a lack of feelings of belonging and poor prospects in the workplace mediated the relationship between stereotype threat and job attitudes among women in male-dominated organizations. Yet even these mediating processes may not translate to men in pink-collar professions where, rather than having reduced career prospects, men appear to ride a glass escalator (e.g., C. L. Williams, 2013). Future research should examine the process variables that may account for the disengagement consequences of stereotype threat. From the review of Pennington *et al.*, cognitive appraisal appears to be a promising candidate because people tend to disengage when they perceive the situation as a threat, rather than a challenge (Drach-Zahavy & Erez, 2002).

Concluding Thoughts

Men are increasingly entering female-dominated professions (Dewan & Gebeloff, 2012), but this rate of growth does not match the increasing number of women entering traditionally male-dominated professions (Women's Bureau of the United States Department of Labor, 2008), suggesting that there may be important problems in recruiting and retaining men in pink-collar jobs. Increasing male representation in these jobs may help address negative stereotypes about men in feminine professions, provide counter-stereotypic role models for the boys with whom they work (Hood, 2001), and help reduce the rigidity of gender stereotypes (Eagly & Steffen, 1984). Male under-employment in pink-collar professions is also an issue for women in these professions. Ironically, increasing the percentage of male workers in traditionally feminine jobs can help improve work conditions, as workers in such fields are often under-paid and devalued (Cohen & Huffman, 2003a, 2003b). For all of these reasons, it is important to understand the experiences of men in female-dominated professions, but there is a paucity of research investigating barriers to men working in traditionally feminine roles (Croft, Schmader, & Block, 2015). The current studies provide

a first step in examining the role of stereotype threat in disengagement of male employees in pink-collar professions, and suggest that addressing stereotype threat will be important in encouraging men to engage in communal professions.

Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's web-site.

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