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Marines, medics, and machismo: Lack of fit with masculine occupational stereotypes discourages men’s participation

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Women have made substantial inroads into some traditionally masculine occupations (e.g., accounting, journalism) but not into others (e.g., military, surgery). Evidence suggests the latter group of occupations is characterized by hyper-masculine 'macho' stereotypes that are especially disadvantageous to women. Here, we explore whether such macho occupational stereotypes may be especially tenacious, not just because of their impact on women, but also because of their impact on men. We examined whether macho stereotypes associated with marine commandos and surgeons discourage men who feel that they are ‘not man enough’. Study 1 demonstrates that male new recruits’ ($N = 218$) perceived lack of fit with masculine commandos was associated with reduced occupational identification and motivation. Study 2 demonstrates that male surgical trainees’ ($N = 117$) perceived lack of fit with masculine surgeons was associated with reduced identification and increased psychological exit a year later. Together, this suggests that macho occupational stereotypes may discourage the very men who may challenge them.

‘When I’m around the men here, I feel like I’m still a boy’. Marine Commando (Hale, 2008, p. 325)

‘… [The other male surgeons] make you feel like you’re a wuss with an easy life. That you’re not man enough to be a surgeon’. Trainee Surgeon (Kellogg, 2012, p. 1559)

Recent decades have seen a growing number of women entering into occupations that were traditionally dominated by men (Baunach, 2002; Reskin, 1993; Reskin & Roos, 1990; Seibert, Fossett, & Baunach, 1997). However, these gains have not been equally realized. Clear evidence for occupational feminization can be found in a range of professional occupations, including accounting, journalism, and general medical practice (England & Browne, 1992). In contrast, women remain severely underrepresented in occupations that have historically been predicated on physical strength and aggression. These include the armed forces, manual and craftwork (notably, durable good manufacturing and construction), and certain high-status occupations such as

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surgery (which until quite recently was the most brutal and invasive of medical practices; Gawande, 2012). Although there are likely to be several factors that can account for the differential penetration of women into these different occupations, there is evidence that one important factor may be the gendered nature of the occupational stereotypes with which they are associated. In particular, there is evidence that the occupations that women have made limited inroads into are dominated by hyper-masculine – macho – stereotypes (e.g., Barrett, 1996; Cassell, 1986). Women’s perceptions that they do not fit with these macho stereotypes have been shown to undermine their motivation to enter into, and remain within, these occupations (Peters, Ryan, & Haslam, 2012; Peters, Ryan, Haslam, & Fernandes, 2012).

In this paper, we explore the possibility that these macho occupational stereotypes are likely to be particularly tenacious by virtue of their impact on men. In particular, the quotes provided above suggest that some men feel that they do not measure up to these macho occupational stereotypes – that they are ‘not man enough’ to succeed. This suggests that being a man may not be enough to protect individuals from the corrosive effects of these macho stereotypes; a possibility that is supported by the finding that the gender identity-based fit dynamics that are observed among women are also present, if weaker, among men (Peters, Ryan, Haslam, & Fernandes, 2012). If men who perceive that they do not fit in with macho occupational stereotypes are less likely to enter into and remain within an occupation, then this points to one mechanism through which macho occupational stereotypes may persist over time. In the remainder of this Introduction, we will discuss evidence that traditionally masculine occupations are associated with masculine stereotypes – although their precise nature may vary. We will also discuss evidence that masculine occupational stereotypes that emphasize machismo, toughness, and aggression are discouraging for women, and may discourage some men.

**Gendered stereotypes in the workplace**

The segregation of men and women into different occupations and different roles remains widespread (Charles & Grusky, 2004; Reskin, 1993), and by some estimates around half of all women would need to move into a traditionally male-dominated job in order to achieve full integration (Swanson, 2011). While the sex segregation of labour roles has historically had some basis in the physical and reproductive differences between the sexes (Eagly & Steffen, 1984; Eagly, Wood, Diekman, 2000; Murdock & Provost, 1973; Whyte, 1978; Wood & Eagly, 2002), societal and technological changes in the West have meant that strength is less of a requirement than it once was and women with children are less bound to the home. In spite of this, there is evidence that people’s perceptions of the attributes that are required for occupational success are still strongly influenced by the numerical representation of men and women in a given occupation.

For instance, Cejka and Eagly (1999) demonstrated that participants had a very strong tendency to assume that in occupations that were dominated by men, stereotypically masculine attributes (such as physical strength and competitiveness) were necessary for success, but that in occupations that were dominated by women stereotypically feminine attributes (such as beauty and warmth) were instead necessary. In a similar way, Schein (1973, 1975; see also Koenig, Eagly, Mitchell, & Ristikari, 2011; Ryan, Haslam, Hersby, & Borgiorno, 2011) demonstrated that individuals believed that men were more likely than women to possess the characteristics associated with managerial success. Indeed, from a list of 92 person descriptors, 60 were seen to be characteristic of both successful middle
managers and men (e.g., emotionally stable, ambitious, self-reliant). In stark contrast, only eight of the descriptors were seen to be characteristic of both successful middle managers and women (e.g., aware of the feelings of others, intuitive, understanding; Schein, 1973).

However, there is evidence that different male-dominated occupations can be associated with different masculine stereotypes. The precise construction of the masculine stereotype appears to vary with people’s understandings of the nature of the work that is involved. For instance, Barone (2011) argued that in order to understand the underrepresentation of women in science (relative to the humanities) it is important to also consider people’s understandings of the technical (vs. care) requirements of the role. In the case of male-dominated roles, Barrett (1996) argued that people with different occupational roles in the US Navy had different understandings of desirable masculine attributes, so that while aviators valued risk-taking and autonomy, supply officers valued technical rationality, and surface warfare officers valued perseverance.

Cejka and Eagly (1999) also provided evidence that occupations could be distinguished on the basis of the extent to which they required stereotypically masculine or feminine physical, personality, or cognitive characteristics. Importantly, they found that occupations that were seen to require masculine physical and personality characteristics (e.g., strength and aggression) showed a more substantial fit with being male than occupations that required masculine cognitive characteristics (e.g., analytical thinking). The former occupations were also rated as substantially less attractive by women than the latter occupations. In this context, it is notable that the traditionally masculine occupations within which women have made the smallest inroads are those that are associated with masculine physical and personality characteristics, and which emphasize a tough, aggressive, and macho masculinity. This is perhaps not surprising in the light of evidence that measuring up to such hyper-masculine stereotypes requires the eschewal of all traces of femininity (Kierski & Blazina, 2009; Weaver, Vandello, Bosson & Burnaford, 2010). In the next section, we will discuss evidence that macho occupational stereotypes not only discourage women but may also discourage some men.

**Gendered stereotypes and occupational engagement**

There is a wealth of evidence that gender stereotypes can disadvantage women through their impact on others’ expectations of what women are like and should be like. Gendered workplace stereotypes are not only descriptive of the characteristics and behaviour of people who belong to particular work groups, but are also strongly prescriptive – serving to structure expectations about how people should act (Rudman & Glick, 2001). In this way, stereotypes provide a standard against which individuals can be evaluated. In line with this possibility, there is a wealth of evidence that observers evaluate women more negatively in contexts that are associated with masculine workplace stereotypes (Eagly & Karau, 2002; Heilman, 1983; Rudman & Glick, 2001).

Beyond this, the social identity perspective provides a basis for the expectation that stereotypes also provide a standard for people when thinking about their own careers, and deciding which occupations to pursue. In particular, according to self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Turner, Oakes, Haslam, & McGarty, 1994), the degree to which the norms and expectations associated with a group serve to structure an individual’s behaviour is determined by the extent to which that individual sees him- or herself as prototypical (or representative) of the group in question (Turner, 1985). Individuals who see themselves as prototypical of a group are more likely to internalize its norms as self-defining than are individuals who see themselves as
peripheral to a group (see Ashforth & Mael, 1989; Haslam & Ellemers, 2005; Jetten, Spears, & Manstead, 1997; Noel, Wann, & Branscombe, 1995; Van Kleef, Steinel, van Knippenberg, Hogg, & Svensson, 2007). On this basis, we would expect that people who perceive their own characteristics to be similar to those of the occupational stereotype would be more likely to identify with this occupation. Importantly, this should also mean that they are more motivated to enter and then remain within it (e.g., Olkkonen & Lipponen, 2006; Van Dick et al., 2004).

In line with this general possibility, there is evidence that people who perceive that they possess attributes that are characteristic of members of a given occupation exhibit greater occupational engagement. For instance, Lane and Gibbons (2007) found that vulnerable students’ perceptions that they were similar to, and fitted in with, the prototypical university student predicted both their continued enrolment in their degree and their degree-related performance (less vulnerable students seemed to be less affected by fit perceptions). Furthermore, Peters, Ryan, and Haslam (2012) demonstrated that it is possible to manipulate perceptions of occupational fit and, through this, occupational motivation (see also Lockwood & Kunda, 1997). Here, the researchers manipulated participants’ perceptions of their own leadership style and the dominant leadership style in their occupation (either policing or psychology). Participants who were led to believe that their own leadership style was the same as the dominant leadership style expressed higher occupational fit and greater career motivation than participants who were led to believe that their own leadership style differed from the dominant style.

This suggests that occupations that are characterized by tough, aggressive, and macho conceptions of masculinity are likely to be perceived by women as providing a poor fit for them. This perception of a gender-based lack of fit should reduce women’s occupational engagement. There is some previous work that supports such a dynamic. In particular, Peters, Ryan, Haslam, and Fernandes (2012) demonstrated across two studies that female surgical trainees perceived that they lacked the hyper-masculine attributes that they associated with successful surgeons. Importantly, this gender-based lack of fit could explain the observation that these women tended to report higher levels of occupational disidentification and a greater desire for career exit than their male counterparts. These dynamics are one factor that may account for the continued underrepresentation of women in occupations with macho stereotypes.

Interestingly though, Peters, Ryan, Haslam, and Fernandes (2012) found that perceptions of a lack of fit with the macho occupational stereotype were not restricted to women (although they were more prevalent among them). Indeed, among those men who experienced this lack of fit, this perception was found to have similarly negative consequences for occupational identification and desire for exit. This suggests that in many traditionally masculine occupations for a person to (want to) get ahead it is not enough for them simply to be a man, and that some men may fall foul of the same kinds of harmful identity-fit dynamics as women. This finding aligns with evidence that men are in general highly sensitive to their ability to measure up to dominant constructions of masculinity (Vandello & Bosson, 2013). For instance, Vandello, Bosson, Cohen, Burnaforfd, and Weaver (2008) have demonstrated that men who are told that their performance on a general knowledge test is gender atypical (i.e., more similar to the performance of women) show evidence of heightened anxiety relative to men who are told that their performance is gender typical (or women who are provided with either gender typical or atypical feedback). In a similar way, Bosson, Prewitt-Freilino, and Taylor (2005) examined the experiences of men who were asked to engage in a stereotypically
feminine behaviour (in this case, braiding hair), and found that those men who were able to proclaim their masculinity in culturally accepted ways before the behaviour found it much more worthwhile than those men who were not able to do so. Together, these studies speak to the possibility that men are keenly aware of the extent to which their behaviour is consistent with valued constructions of masculinity and are reluctant to (be seen to) behave in ways that are inconsistent.

Such evidence suggests that in organizational contexts where macho constructions of masculinity are highly salient men’s perceptions of their own masculinity are likely to inform their sense that they are similar to, and fit in with, successful individuals in their occupation. Accordingly, such masculinity perceptions should also affect their occupational identification and motivation. If true, this points to one process through which macho occupational stereotypes may persist over time: the men who enter into and remain within such occupations will be those who exemplify the occupation’s macho stereotypes.

This paper aims to test this possibility by building on the findings of Peters, Ryan, Haslam, and Fernandes (2012) in two ways. First, by testing the generalizability of their findings across occupations and career stage. If the effects observed by Peters, Ryan, Haslam, and Fernandes (2012) do pertain to macho occupational stereotypes, then we should see similar effects in other stereotypically macho occupations. Further, to the extent that these macho occupational stereotypes are prevalent in society, then we can expect these effects will be evident from very early in a career. And second, by testing whether these processes have longitudinal consequences. If the causal sequence that we have presented here is correct, then we should find that perceptions of a lack of fit with macho stereotypes at one point in time are associated with poorer occupational engagement at a later point in time.

In this paper, we will test the following two hypotheses:

- **H1.** Men will report lower levels of occupational fit to the extent that they perceive themselves to be less macho than the prototypical members of their occupation.
- **H2.** Men who have lower levels of masculinity-derived occupational fit will report lower occupational identification and occupational motivation.

**The present research**

We tested our hypotheses among male commando recruits in the UK Royal Marines (Study 1) and surgical trainees in the UK National Health Service (NHS, Study 2). These occupations provided appropriate contexts for our research because they are either exclusively or predominantly male: women are currently excluded from the Royal Marines (MOD, 2010) and they make up only around 25% of surgical trainees and 9% of surgical consultants (NHS, 2014). As would be expected from the fact that these occupations are associated with strength and aggression, the associated occupational stereotypes are highly macho. In particular, the military is often considered to be one of the few remaining contemporary institutions that actively develops and celebrates a ‘macho’ masculinity from which all feminine characteristics have been eliminated (e.g., Barrett, 1996; Ette, 2013; Hale, 2008; Klein, 1999; Titunik, 2008). In much the same way, surgery is seen to celebrate the ‘macho, martial hero, who combats disease and rescues patients from death’ (Cassell, 1986, p. 14; see also Buyske, 2005; Gargiulo, Hyman, & Hebert, 2006; Kellogg, 2012). In short, the model of masculinity that dominates these occupations prescribes ‘macho’ forms of toughness and aggressiveness that, as well as excluding women, may also exclude some men.
As well as testing the generalizability of these processes across different macho occupations, we also aim to test the generalizability of the proposed masculinity-derived identity-fit processes at different stages in a career. In particular, we examine these dynamics among recruits on their first day of commando training as well as among surgical trainees who have completed around half of the approximately 10 years of postgraduate training that are required for qualification as a surgical consultant (Royal College of Surgeons, 2014). In the latter sample, we also use a longitudinal approach to examine whether these masculinity-derived perceptions of occupational fit are associated with changes in surgeons’ career attitudes over time.

STUDY 1

Method

Participants

Participants were 218 male Royal Marines recruits who volunteered to complete the questionnaire during an initiation session held in the afternoon of the day of their arrival at the training base. As all recruits volunteered to participate, our sample consists of the entire population of recruits who arrived on Day 1 of this training intake. The recruits were, on average, 20.75 years old (SD = 2.93).

Questionnaire

The questionnaire measured participants’ perceptions of masculinity by asking them to consider how much the trait ‘macho’ could be said to characterize what they themselves were like (i.e., participant masculinity) and what they thought that Royal Marine commandos were like (i.e., commando masculinity) using 5-point Likert scales (where 1 = strongly uncharacteristic, 5 = strongly characteristic). We used these single-item measures of perceptions of masculinity because single-item measures have been shown to demonstrate acceptable reliability and criterion validity when the item has good content validity (e.g., Postmes, Haslam, & Jans, 2013; Rossiter, 2002, 2008; Woods & Hampson, 2005). As noted above, the adjective ‘macho’ provides an accurate and rich description of the particular construction of masculinity that dominates in the military.

We assessed perceptions of occupational fit by asking participants to indicate their agreement with nine items (see Peters, Ryan, & Haslam, 2012; Peters, Ryan, Haslam, & Fernandes, 2012): ‘Generally, I think I’ll ‘fit in’ with the Royal Marine commandos’, ‘I see a place for myself among the commandos’, ‘When I think of the commandos, I get a sense that I won’t belong [reversed]’, ‘My unique talents are not likely to be appreciated by the commandos [reversed]’, ‘As a commando, I would bring different, but valuable, skills and abilities’, ‘I think that my skills will complement those of most commandos’, ‘I see myself as quite different from the commandos [reversed]’, ‘When I look at successful commandos, I have a lot in common with them’, and ‘I think that people like me have managed to become commandos’. We assessed occupational identification by asking

The trait adjective ‘macho’ was incorporated into the M-37 (Boldero, Rawlings, & Haslam, 2007; Rawlings, 2001), a trait adjective checklist that assesses the big five personality variables. There were generally very low associations between participants’ responses to the macho item and the scales representing the five personality factors (the most substantial associations were negative associations with the agreeableness scale: Study 1: \( r_{\text{participant}} = -.28, p < .001 \), \( r_{\text{marines}} = -.29, p < .001 \); Study 2: \( r_{\text{participant}} = -.53, p < .001 \), \( r_{\text{surgeons}} = -.42, p < .001 \)).
participants to indicate their agreement with three items (based on Doosje, Ellemers, & Spears, 1995): ‘I feel strong ties with the Royal Marines’, ‘I see myself as a Royal Marine’, ‘I feel solidarity with the Royal Marines’.

Finally, we assessed occupational motivation by asking participants to indicate their agreement with ten items (see Ellemers, de Gilder, & Haslam, 2004; Peters, Ryan, & Haslam, 2012): ‘My greatest aspiration is to be seen as a good marine’, ‘I do not aspire to become a Royal Marine commando [reversed]’, ‘I am aiming high in the Royal Marines’, ‘Becoming a top commando is not a priority for me [reversed]’, ‘I consider myself ambitious’, ‘It is not important that I succeed as a marine [reversed]’, ‘It is important that I become a commando’, ‘My ambitions in life mainly have to do with my marine career’, ‘Being a marine recruit is only a small part of who I am [reversed]’, ‘Becoming a commando is one of the most important goals in my life’. In order to reduce the possibility of common-method variance, we interspersed items measuring the constructs of interest with filler items examining mood, goal-clarity, and life satisfaction (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Unless otherwise indicated, items were accompanied by identical 7-point Likert response scales (where 1 = strongly disagree, 7 = strongly agree).

## Results

### Descriptive statistics

Table 1 summarizes the scale reliabilities as well as the construct means and bivariate correlations. From this it can be seen that, on average, recruits perceived that commandos were more masculine than they were themselves. Indeed, this pattern was pervasive at the individual level, as 71% of the recruits who provided these data rated the adjective ‘macho’ as more characteristic of commandos than of themselves (fewer than 10% showed the reverse pattern). Participants also reported moderately high levels of occupational fit, occupational identification, and occupational motivation.

### Similarity in perceptions of masculinity and occupational fit

In order to examine whether the differences in recruits’ perceptions of their own and commandos’ levels of masculinity were significant, we conducted two-way (target: participant or commando) repeated measures ANOVA on perceptions of masculinity. Participants’ ratings of commandos’ masculinity were significantly higher on average than were their ratings of their own masculinity, $F(1, 210) = 214.14, p < .001, \eta^2_p = .51$. Next, we tested H1 by examining whether the extent to which recruits perceived that they were

<table>
<thead>
<tr>
<th>Table 1. Study 1: Scale means and bivariate correlations$^a$</th>
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<tbody>
<tr>
<td>Scales</td>
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<tr>
<td>--------</td>
</tr>
<tr>
<td>1. Participant masculinity</td>
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<tr>
<td>2. Commando masculinity</td>
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<tr>
<td>3. Occupational fit</td>
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<tr>
<td>4. Occupational identification</td>
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<tr>
<td>5. Occupational motivation</td>
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</tbody>
</table>

Note. $^aN = 209$, using listwise deletion; scale Chronbach’s alpha reported on the diagonal. $^{**p < .01}$.
less masculine than commandos was associated with their reported levels of occupational fit. For this purpose, we regressed recruits’ perceptions of occupational fit on their mean-centred participant and commando masculinity ratings, the two-way interaction between these centred ratings, as well as their quadratic forms (see Edwards, 1993, 1994). In our analysis, the quadratic terms were both highly collinear with the interaction term, $r_s = .55$ and $.69$, and their inclusion in the model did not improve model fit, $F(2, 205) = 1.66, p = .193$. For these reasons, we excluded them from the final analyses reported below.

This analysis showed that participants’ perceptions of self and commando masculinity and their interaction were able to account for a significant amount of variance in occupational fit perceptions, $R^2 = .06$, $F(3, 205) = 4.48, p = .005$. While recruits’ perceptions of self and commando masculinity alone did not predict perceptions of occupational fit (participant $\beta = .05, p = .502$, commando $\beta = .04, p = .670$), the two-way interaction between these perceptions was a significant positive predictor of occupational fit ($\beta = .26, p = .001$). Decomposition of this interaction (see Aiken & West, 1991) indicated that recruits who considered that the adjective ‘macho’ was somewhat uncharacteristic of themselves showed a significant negative association between perceptions of commando masculinity and occupational fit $– b = -.16, t(208) = -2.48, p = .014$. In contrast, recruits who considered that the adjective ‘macho’ was somewhat characteristic of themselves showed a significant positive association between perceptions of commando masculinity and occupational fit $– b = .22, t(205) = 2.00, p = .047$; see Figure 1. Together these findings are consistent with H1 in demonstrating that recruits reported lower levels of occupational fit to the extent that they perceived themselves to be less masculine than the prototypical members of their occupation. At the same time, there is evidence that perceptions of fit matter even for those (few) recruits who perceived themselves to be more masculine, as they reported lower fit when they perceived that they were more masculine than these prototypical members.

**Masculine occupational fit and occupational experiences**

In order to test H2, we used hierarchical regression analysis to examine whether recruits’ masculinity-derived occupational fit is positively associated with their reported levels of
Step 1 involved regressing the construct of interest on participants’ perceptions of masculinity and the associated two-way interaction. Step 2 involved the inclusion of occupational fit perceptions. All predictor variables were centred around the mean.

Step 1 accounted for a significant amount of variance in occupational identification, $F(3, 205) = 4.33, p = .008$, and the interaction between participants’ perceptions of their own masculinity and commando masculinity was a significant positive predictor of occupational identification. This suggests that alignment in participants’ perceptions of their own masculinity and that of commandos was associated with higher occupational identification. The inclusion of occupational fit in Step 2 led to a significant improvement in model fit, $\Delta F(1, 204) = 46.45, p < .001$, and the fit measure was a positive significant predictor of identification. Importantly, in line with the possibility that perceptions of masculinity exert an effect on identification through occupational fit, the masculinity interaction now dropped out as a predictor. Indeed, a formal test of the possibility that the effect of perceptions of masculinity on identification was mediated by occupational fit using Preacher and Hayes’s (2008) approach with 1,000 bootstrap samples revealed that the indirect path was significant ($b = .09, 95\% CI: .05–.15$).

Step 1 accounted for a marginally significant amount of variance in occupational motivation, $F(3, 205) = 2.63, p = .051$, and in line with the above findings the interaction between participants’ perceptions of their own masculinity and commandos’ masculinity exerted a significant positive effect on occupational motivation, $F(2, 204) = 0.02, p = .976$, and so we excluded them from the analyses.

As before, inclusion of the quadratic terms did not account for a significant proportion of the variance in occupational identification, $F(2, 205) = 0.37, p = .689$, or occupational motivation, $F(2, 204) = 0.02, p = .976$, and so we excluded them from the analyses.

### Table 2. Study 2: Scale reliabilities, means, and bivariate correlations

<table>
<thead>
<tr>
<th>Scales</th>
<th>$M$ (SD)</th>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<tr>
<td><strong>Time 1 measures</strong></td>
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<tr>
<td>1. Participant masculinity</td>
<td>3.01 (0.95)</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2. Surgeon masculinity</td>
<td>3.57 (0.81)</td>
<td>.31**</td>
<td>–</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>3. Occupational fit</td>
<td>5.50 (0.97)</td>
<td>.28**</td>
<td>-.05</td>
<td>(.89)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Occupational identification</td>
<td>5.24 (0.91)</td>
<td>.25*</td>
<td>-.19***</td>
<td>.62**</td>
<td>(.76)</td>
<td></td>
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<tr>
<td>5. Psychological career exit</td>
<td>2.13 (0.90)</td>
<td>.05</td>
<td>.07</td>
<td>-.54**</td>
<td>-.52**</td>
<td>(.83)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Time 2 measures</strong></td>
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<tr>
<td>6. Occupational fit</td>
<td>5.58 (0.78)</td>
<td>.32**</td>
<td>-.10</td>
<td>.79**</td>
<td>.60**</td>
<td>-.44**</td>
<td>(.79)</td>
<td></td>
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<tr>
<td>7. Occupational identification</td>
<td>5.06 (0.79)</td>
<td>.29**</td>
<td>-.11</td>
<td>.60**</td>
<td>.78**</td>
<td>-.28**</td>
<td>.66**</td>
<td>(.69)</td>
<td></td>
</tr>
<tr>
<td>8. Psychological for career exit</td>
<td>2.30 (1.02)</td>
<td>-.01</td>
<td>-.00</td>
<td>-.48**</td>
<td>-.46**</td>
<td>.64**</td>
<td>-.55**</td>
<td>-.39**</td>
<td>(.87)</td>
</tr>
</tbody>
</table>

Note. *N* = 94, using listwise deletion; scale Chronbach’s alphas provided on the diagonal. *p* < .05; **p** < .01; ***p** < .10.

occupational identification and occupational motivation (see Table 2 for standardized regression coefficients). Step 1 involved regressing the construct of interest on participants’ perceptions of masculinity and the associated two-way interaction. Step 2 involved the inclusion of occupational fit perceptions. All predictor variables were centred around the mean.

As before, inclusion of the quadratic terms did not account for a significant proportion of the variance in occupational identification, $F(2, 205) = 0.37, p = .689$, or occupational motivation, $F(2, 204) = 0.02, p = .976$, and so we excluded them from the analyses.
was a significant positive predictor of occupational motivation. The inclusion of occupational fit in Step 2 led to a significant improvement in model fit, $F(1, 204) = 63.22, p < .001$, and again occupational fit was a positive significant predictor of motivation while the interaction no longer reached conventional levels of significance. A formal test of the possibility that the effect of perceptions of masculinity on identification was mediated by occupational fit using Preacher and Hayes’s (2008) approach with 1,000 bootstrap samples revealed that the indirect path was significant ($b = .07$, 95% CI: .03–.12).

**Discussion**

In line with H1, there is evidence that male Royal Marine commando recruits are sensitive to perceptions that they do not measure up to the perceived masculinity of prototypical members of the Royal Marines. We found that these masculinity perceptions were associated with recruits’ perceptions that they would fit in with existing commandos. In particular, although the majority of recruits expected that commandos would be more macho than they themselves were, there were individual differences in these perceptions, and recruits who perceived themselves to be less masculine than the prototypical marine commandos reported lower levels of occupational fit. At the same time, those (few) recruits who perceived themselves to be more masculine than the prototypical marine commandos also reported lower levels of occupational fit. Moreover, in line with H2, there is evidence that this masculinity-derived sense of occupational fit has consequences for recruits’ levels of occupational identification and motivation on the first day of their training. Specifically, the recruits who perceived themselves to be less masculine than commandos (i.e., the majority of recruits) were less identified with the Royal Marines and less motivated to succeed than the recruits who perceived that they were just as masculine as commandos. Importantly, there was evidence that these masculinity perceptions mattered because they provided the basis for perceptions of occupational fit.

**STUDY 2**

The findings of Study 1 are consistent with previous research that has demonstrated that women’s gender-derived lack of fit with the macho stereotypes that dominate in traditionally male occupations that are associated with strength and aggression can account, in part, for their continued under-representation in these occupations (e.g., Peters, Ryan, Haslam, & Fernandes, 2012). Importantly, though, the study builds on this previous work by suggesting that men are not immune to these same identity dynamics. In particular, it appears that men are highly sensitive to their similarity to machismo constructions of masculinity, and that many men feel that they do not fit in with a culture (in this case, that of the Royal Marines) that values tough and aggressive forms of manhood. Moreover, perceiving a lack of fit in such an occupation appears to undermine men’s professional identification and motivation in much the same way as it does women’s.

Nevertheless, it is likely that many of the new recruits who were participants in Study 1 had spent little (if any) time with commandos before their arrival at the training base. So, although it is noteworthy that these dynamics are visible at the very start of a person’s career, the study’s findings raise the question of whether issues of masculinity and fit
continue to play a role in men’s experiences as they become more immersed in a particular career. The cross-sectional nature of this sample also raises a question about the causal nature of these processes. Although it seems theoretically less plausible that levels of occupational engagement could drive perceptions of occupational fit and therefore perceptions of masculinity, it is nonetheless important to look for evidence that masculinity perceptions may be associated with changes in occupational engagement over time. This is an issue that we addressed in Study 2 that examined whether masculinity perceptions play a role in the occupational fit, identification, and psychological exit of male trainee surgeons who have been immersed in their surgical career for approximately 5 years. Importantly, we also used a longitudinal approach to assess whether masculinity perceptions at one point in time could account for changes in occupational engagement one or 2 years later.

**Method**

**Participants**

Participants were 117 male surgical trainees who responded to at least two of three annual online questionnaires that were circulated to trainee members of the Royal College of Surgeons, England. This included 67 (or 45%) of the 149 men who responded to the first questionnaire (11 provided their second response to the second questionnaire, 44 to the third questionnaire, and 12 to both subsequent questionnaires) and 50 (or 48%) of the 117 men who responded for the first time to the second questionnaire (and thereafter to the third questionnaire). We treated participants’ first completed questionnaire as their Time 1 response and participants’ final completed questionnaire as their Time 2 response. Consequently, the period that elapsed between Time 1 and Time 2 responses was a single year for 61 participants and 2 years for the remaining 56 participants. Participants were on average 31.18 years old (SD = 3.03) and in their fifth year of postgraduate training (M = 5.22, SD = 1.64) at Time 1 and 32.60 (SD = 2.80) and in their sixth year of training (M = 6.47, SD = 1.62) at Time 2.

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3 Data provided by the 61 participants who responded to questionnaire 2 (either as a T1 response for 50 participants or a T2 response for 11) were also incorporated into a previous cross-sectional analysis that examined identity-fit dynamics for male and female trainees (see Peters, Ryan, Haslam, & Fernandes, 2012). Importantly, this previous analysis did not incorporate any longitudinal data, which lie at the heart of the current analysis.

4 We used independent samples t-tests to examine whether there were any differences between participants who responded to more than one questionnaire (and so could be included in the analysis) and those who only responded to a single questionnaire in terms of the constructs of interest in this paper. We conducted these comparisons separately for participants whose first response was to questionnaire 1 and those whose first response was to questionnaire 2. These analyses revealed that respondents who responded once and those who responded more than once did not differ significantly in terms of their perceptions of their own masculinity (Q1: t(139) = 1.23, p = .219, Q2: t(119) = 0.71, p = .481), their perceptions of the prototype’s masculinity (Q1: t(138) = 1.43, p = .303, Q2: t(119) = 0.91, p = .366), their ratings of prototype fit (Q1: t(142) = -1.24, p = .216, Q2: t(116) = -1.45, p = .150), their reported occupational identification (Q1: t(142) = -1.70, p = .091, Q2: t(115) = 0.10, p = .918), or the desire to opt-out of their career (Q1: t(139) = 1.12, p = .264, Q2: t(113) = -0.04, p = .966). Therefore, there is no evidence that the participants in this analysis differed in any important way from the broader population of respondents.

5 We also conducted the analyses including time as an additional moderator to see whether it qualified any of the findings reported below. Including the main effect of time (effect coded so that 1 year = -1 and 2 years = +1) and the three interactions between time and the masculinity perceptions did not account for any additional variance beyond that accounted for by the masculinity perceptions in T2 identification, F(4, 93) = 1.05, p = .385, or T2 psychological exit, F(4, 91) = 1.07, p = .331. In Step 2, including the interaction between time and occupational fit did not account for any additional variance beyond that accounted for by occupational fit in T2 identification, F(1, 91) = 0.82, p = .369, or T2 psychological exit, F(1, 89) = 1.49, p = .225.
Questionnaire

At Time 1, we asked participants to complete measures of surgeon masculinity, participant masculinity, and occupational fit using the same items that were described in Study 1, adapted to a surgical career \(^6\) (due to a transcription error, the occupational fit scale only included 8 of the 9 items described in Study 1). We measured occupational identification by asking participants to indicate their agreement with the following 6 items (based on Cameron, 2004, three-factor model of social identity): ‘Generally, I feel good when I think about myself as a surgeon’, ‘I am not usually conscious of the fact that I am a surgeon’ [reversed], ‘I don’t get a sense of being connected with other surgeons’ [reversed], ‘Just thinking about the fact that I am a surgeon sometimes gives me bad feelings’ [reversed], ‘I have strong ties to other surgeons’, I often think about the fact that I am surgeon’. Finally, we measured psychological career exit by asking participants to indicate their agreement with the following 7 items (modelled on Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Hagedoorn, Van Yperen, Van de Vliert, & Buunk, 1999; Schmader, Major, & Gramzow, 2001): ‘I am less ambitious in my career that I used to be’, ‘I feel it is not worth trying to get ahead in surgery’, ‘My work is just a means to an end’, ‘I just go to work’, ‘If I could I would leave surgery’, ‘I often think about leaving surgery’, ‘I am actively searching for another career’. With the exception of the masculinity items, which were measured on 5-point Likert scales, items were accompanied by identical 7-point Likert scales (1 = strongly disagree, 7 = strongly agree). The scales of interest were separated by filler constructs measuring work-life balance, burnout, and self-efficacy, reducing the possibility that common-method variance could affect the responses of interest (Podsakoff et al., 2003). At Time 2, participants completed the occupational fit, identification, and psychological career exit scales for a second time.

Results

Descriptive statistics

Table 2 provides details of scale reliabilities, means, and bivariate correlations. From this, it can be seen that at T1 participants generally perceived the prototypical surgical consultant to be somewhat more masculine than they themselves were. Of the 109 trainees who provided these ratings, 44% rated being ‘macho’ as more characteristic of surgeons than it was of themselves (fewer than 10% showed the opposite pattern, and the remainder perceived no difference). Further, across both time points, participants reported high levels of occupational fit and occupational identification and a low level of psychological career exit.

Perceptions of masculinity and occupational fit

In order to assess whether male surgical trainees perceived differences between their own masculinity and that of surgeons, we conducted two-way (target: participant or surgeon) repeated measures ANOVA on perceptions of masculinity. Participants perceived that surgeons were more masculine than they themselves were, \(F(1, 108) = 31.02, p < .001, \epsilon_p^2 = .22\). In order to test H1 and see whether trainees’ T1 masculinity perceptions were

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\(^6\) The Study 2 occupational fit scale specifically measured participants’ perceptions that they are similar to and fit in with surgical consultants who represent the individuals who have succeeded in their surgical career – the group that trainees are trying to join.
associated with their T1 perceptions of occupational fit, we regressed occupational fit on participant and surgeon masculinity ratings (both of these ratings were mean centred) and the two-way interaction between these masculinity perceptions (Edwards, 1993, 1994). As inclusion of the quadratic terms did not change the pattern of results in this analysis,7 or any of the analyses that follow, we excluded these from the final models, and will not discuss them further.

This analysis revealed that perceptions of masculinity accounted for a significant amount of the variance in occupational fit, \( R^2 = .23, F(3, 101) = 9.89, p < .001 \). In particular, the more participants perceived that the adjective ‘macho’ to describe themselves, the higher their occupational fit (\( \beta = .39, p = .003 \)). Although perceptions of surgeon masculinity did not directly relate to perceptions of occupational fit (\( \beta = -.02, p < .001 \)), they did qualify the participant masculinity effect described above (\( \beta = .36, p < .001 \)). Decomposing this interaction (see Aiken & West, 1991) revealed that among trainees who regarded the adjective ‘macho’ as somewhat uncharacteristic of themselves there was a significant negative association between perceptions of surgeon masculinity and occupational fit – \( b = -.38, t(101) = -3.19, p = .002 \). On the other hand, among trainees who regarded the adjective ‘macho’ as somewhat characteristic of themselves there was a marginal positive association between perceptions of surgeon masculinity and occupational fit – \( b = .34, t(101) = 1.93, p = .056 \); see Figure 2). Therefore, in line with H1, there is evidence that the more trainees consider that they fail to measure up to occupational standards of masculinity, the less they report fitting in with successful members of the occupation.

**Occupational fit and change in occupational experiences**

In order to assess H2 and our claim that trainees’ masculinity-derived perceptions of occupational fit would be associated with changes in their reported levels of occupational identification and psychological career exit over time, we ran a three-step series of hierarchical regressions for each dependent variable in turn. All predictors were mean

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7 Inclusion of the quadratic terms did account for a significant proportion of the variance in occupational fit, \( F(2, 99) = 9.12, p < .001 \), but did not change the pattern of results. In contrast, the quadratic terms did not account for significant proportions of T2 occupational identification, \( F(2, 94) = 0.17, p = .845 \), or occupational motivation, \( F(2, 92) = 0.12, p = .889 \).
centred. In Step 1, we regressed the T2 construct of interest on the T1 perceptions of masculinity and the two-way interaction between these variables to see whether perceptions of masculinity were associated with trainees’ occupational outcomes one or more years later. In Step 2, we additionally included T1 occupational fit perceptions to see whether this mediated the impact of perceptions of masculinity. Finally, in Step 3, we included the T1 measure of the dependent variable. This allows us to see whether the predictors are associated with change in the dependent variable relative to baseline (T1), controlling for associations between the predictors and the dependent variable at T1. The standardized regression coefficients for these analyses are displayed in Table 3.

Step 1 accounted for a significant proportion of the variance in occupational identification, $F(3, 96) = 7.92, p < .001$. Replicating the findings above, trainees’ perceptions of masculinity and the two-way interaction were significant positive predictors of their levels of occupational identification. In line with H2, Step 2 improved the fit of this model, $F(1, 95) = 30.60, p < .001$, and trainees’ occupational fit significantly predicted identification. At the same time, their perceptions of masculinity no longer attained conventional levels of significance, suggesting that their impact on identification was mediated by occupational fit perceptions. To formally test this mediation, we ran OLS regression with 1,000 bootstrap samples (Preacher & Hayes, 2008). This revealed that the indirect pathway of the masculinity interaction on identification through occupational fit was significantly higher than would be expected by chance ($b = .14$, bias corrected 95% CI: .05–.27). Step 3 again improved model fit, $F(1, 94) = 46.16, p < .001$, and while the T1 identification measure was a significant predictor of identification over a year later, occupational fit remained a positive and significant (albeit smaller) predictor of T2 identification. This suggests that masculinity-derived perceptions of occupational fit may have long-term consequences.

Step 1 accounted for a significant amount of variance in trainees’ levels of psychological career exit, $F(3, 90) = 3.63, p = .016$, and in line with the above findings, there was evidence that participants who perceived that they differed in masculinity from surgeons reported higher levels of psychological career exit. In line with H2, the inclusion of the T1 occupational fit measure in Step 2 led to a significant improvement in model fit, $F(1, 89) = 21.13, p < .001$, and occupational fit (which was a significant negative predictor of psychological exit) appeared to account for the relationship between perceptions of masculinity and psychological exit. A formal test of this possibility (with OLS regression and 1,000 bootstrap samples, Preacher & Hayes, 2008) revealed that the indirect effect was significantly stronger than would be expected by chance ($b = -.16$, bias corrected 95% CI: -.39 to -.05).

Finally, controlling for the T1 measure of psychological exit in Step 3 led to a significant improvement in model fit, $F(1, 88) = 30.20, p < .001$, and the significant association between the T1 and T2 measures indicates that psychological exit is somewhat stable over time. Interestingly, the interaction between masculinity perceptions re-emerged as a significant negative predictor of exit. This suggests that participants who perceived that they differed from the masculinity prototype were more likely to report increasing psychological exit over time (but this was not mediated through occupational fit). As this pattern of findings was unexpected, we re-ran this final analysis excluding the perceptions of masculinity in order to see whether T1 occupational fit (when considered alone) was able to predict changes in psychological exit over time. This regression revealed that T1 occupational fit perceptions significantly predicted T2 psychological exit ($\beta = -.20, p = .040$) controlling for the effect of T1 psychological exit ($\beta = .53, p < .001$; model $R^2 = .43, F(2, 91) = 19.44, p < .001$). Together, these analyses are consistent with the
| T1 predictors | Study 1 | | | Study 2 | | | Study 2 | | |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|              | Occupational identification | Occupational motivation | T2 occupational identification | T2 psychological exit | T2 occupational identification | T2 psychological exit | T2 occupational identification | T2 psychological exit | T2 occupational identification | T2 psychological exit | T2 occupational identification | T2 psychological exit |
|              | Step 1 | Step 2 | Step 1 | Step 2 | Step 1 | Step 2 | Step 1 | Step 2 | Step 1 | Step 2 | Step 1 | Step 2 |
| Participant masculinity | .14*** | .12 | .02 | -.00 | .30** | .15*** | .08 | .05 | .17*** | .05 |
| Commando/surgeon masculinity | -.03 | -.05 | .13 | .11 | -.09 | -.07 | -.00 | -.13 | -.13 | -.12 |
| Com/Surg X Participant masculinity | .20* | .09 | .22** | .09 | .30** | .12 | .02 | -.35** | -.18*** | -.19* |
| Occupational fit | | .43** | .49** | | | | | | .58** | | |
| Occupational identification | | | | | | | | | | | .53** |
| Desire for career exit | | | | | | | | | | | |
| $R^2$ | .06** | .23** | .04*** | .27** | .20** | .39** | .59** | .11* | .28** | .46** |

Note. *p < .05; **p < .01; ***p < .10.
hypothesis that masculinity perceptions and occupational fit can have long-term consequences, such that trainees who perceive that they are less masculine than surgeons report increased psychological exit at a later point in time.

Discussion

This study provides additional evidence for H1 in demonstrating that trainees reported lower levels of occupational fit to the extent that perceived that they were less masculine than surgeons. In other words, even when men had been immersed in an occupational context for several years, they did not become insensitive to masculinity-based comparisons with prototypical members of their occupation. Our analysis also provided further support for H2 in demonstrating that masculinity-derived perceptions of low (vs. high) occupational fit were associated with (1) lower levels of occupational identification and (2) higher levels of psychological exit one or 2 years later. Importantly, these findings emerged even when the autocorrelation between T1 and T2 measures of occupational identification or motivation was controlled for. Although this analysis cannot establish causality (because it is not able to rule out the role of third, unmeasured, variables) it is consistent with claims that masculinity-derived perceptions of occupational fit have long-term consequences and that individuals who perceive there to be poor (rather than good) fit at one point in time are likely to report weaker occupational engagement in the future.

GENERAL DISCUSSION

The results reported in this paper provide evidence that some men may be negatively impacted by the masculine stereotypes that are prevalent in male-dominated occupations and positions (Cejka & Eagly, 1999; Schein, 1973). In particular, we found that a man’s gender alone is not always a sufficient basis for him to perceive that he ‘has what it takes’ to be a successful member of his occupation. Indeed, among our sample of commando recruits, 71% rated marine commandos as more macho than they themselves were, and among our sample of surgeons, 44% rated surgeons as more macho. Only 10% of either sample perceived that their own machismo was higher than that of the prototypical members of their occupation.

Importantly, both studies also provided clear support for theory-derived hypotheses. In line with H1 and previous evidence that men are highly sensitive to the possibility that they do not measure up to contextually valued constructions of masculinity (e.g., Vandello et al., 2008), the extent to which men perceived that their masculinity was lower than that of marine commandos or surgeons was associated with lower levels of occupational fit. In line with H2, these masculinity-derived perceptions of a lack of occupational fit were also associated with lower levels of occupational motivation (Study 1), occupational identification (Studies 1 and 2), and higher levels of psychological exit (Study 2). Importantly, Study 2 also provided evidence that points to the potential impact of masculinity perceptions over time, as participants who reported low masculinity-based occupational fit at an initial measurement point reported reduced occupational identification and increased psychological exit one or 2 years later.

These findings suggest that although men may be buffered from the impact of masculine stereotypes on observers’ evaluations (e.g., Eagly & Karau, 2002), they are not similarly buffered from their own perceptions that they do not measure up to these
stereotypes. Therefore, although masculine stereotypes may, in general, have more harmful consequences for women – who are both more negatively evaluated and more likely to perceive that they do not meet this standard – they may also have harmful consequences for some men. Specifically, the identity-fit dynamics that we have described in this paper may erode the occupational motivation of men who perceive themselves as atypical in terms of masculinity, whether at the point of entry into an occupation (Study 1) or many years down the track (Study 2). These findings, therefore, suggest that occupational practitioners who wish to increase diversity in traditionally masculine occupations should concern themselves not only with the experiences of women but also with those of men who perceive themselves to be atypical within the occupational context. Intriguingly too, the present evidence suggests that more men fall into this category than might be expected. Indeed, as noted above, in both of the present samples approximately half of the men saw themselves as under-representative of masculine norms and only a very small number of men as exceeding these masculine norms.

Importantly, these findings point to a dynamic whereby the macho stereotypes that are associated with occupations that have historically been predicated on physical strength and aggression are likely to be especially tenacious. That is, it is the men who feel that they measure up to these hyper-masculine stereotypes that are most likely to enter into and remain within these occupations. This is likely to reinforce the stereotypes that have been shown to have negative implications for women's engagement with these occupations. This suggests, therefore, that increasing the diversity of men within these occupations (especially those men who are likely to challenge the macho stereotype) may be one important step towards increasing the engagement of women.

While these findings are consistent with existing research, it is important that we acknowledge that the correlational and self-report nature of these studies pose challenges to the interpretations that we have presented in this paper. First, processes related to common-method variance may have inflated the associations between the constructs of interest (e.g., Podsakoff et al., 2003). Although we cannot entirely discount this possibility, we did follow Podsakoff et al.'s (2003) recommendations by separating the constructs of interest. Furthermore, in the light of the fact that it is difficult to obtain significant interactions in data sets that are affected by common-method variance (Siemsen, Roth, & Oliveira, 2010), and that our hypotheses directly concerned the interaction between self- and occupational masculinity perceptions, we can have some confidence in the integrity of our findings. Second, the correlational nature of these studies raises the possibility that alternative causal pathways are responsible for the patterns we observe. Thus, although our finding that perceptions of masculinity-derived occupational fit at one time point are able to predict changes in occupational identification and psychological exit at a later time point are consistent with our theorizing, it nonetheless is possible that some third unstudied variable is responsible for the patterns that we observe. In the light of this, it is certainly the case that the present arguments need be consolidated by further research, and that there would be particular value in experimental research that manipulates key variables of interest (e.g., along lines suggested by Peters, Ryan, & Haslam, 2012).

It is also important to consider the possibility that issues of response bias may have implications for the generalizability of our results to the occupational populations at large. In particular, it seems plausible that men who perceive themselves as non-prototypical (less masculine) may have been especially likely to volunteer to participate in our research, which would lead us to overestimate the prevalence of atypical and typical men among Royal Marines recruits or surgical trainees. Certainly the fact that perceptions of
low self-masculinity were associated with perceptions of high self-agreeableness is consistent with this possibility. However, in this regard it is important to recall that our sample of marine recruits in Study 1 was composed of almost the entire population of marine recruits who attended Day 1 of training (a handful of recruits occasionally miss this first day), and perceptions of a relative lack of masculinity was higher in this sample than it was among surgeons. On this basis, we can be reasonably confident that response bias does not pose a strong threat to the generalizability of our results.

Conclusion
The existing research into the impact of gendered workplace stereotypes has provided ample evidence of the negative effects of masculine stereotypes for women (and their generally beneficial effects for men). However, as we have shown, when masculine stereotypes are used as a standard against which to evaluate one’s own career prospects, they can also disadvantage some men – if not most of them. Across our two samples less than half of respondents perceived that they ‘were man enough’. Although this may be an overestimation of the prevalence of atypical men in these occupations, it nonetheless points to the possibility that occupations that value this aggressive machismo may also struggle to attract and motivate a sizeable proportion of men. These dynamics may shore up the macho stereotypes that dominate certain occupations, and which have been shown to been so detrimental to women’s engagement. Intriguingly, this suggests that increasing the appeal of these occupations to a more diverse range of men may be one way of increasing their appeal to women.

References


gargiulo, d. a., hyman, n. h., & hebert, j. c. (2006). Women in surgery: Do we really understand the deterrents? *Archives of Surgery, 141*, 405–408. doi: 10.1001/archsurg.141.4.405


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