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Running head: Relative Group Performance

Failure as an Asset for High-Status Persons –

Relative Group Performance and Attributed Occupational Success

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Abstract

According to research on social identity theory and on prescriptive norms and stereotypes people are viewed as prototypical of a group to the extent that they possess ingroup characteristics but not outgroup characteristics. Following this assumption, even failure might have positive effects for high-status persons when they underperform in low-status domains. In this case, individual failure may be viewed as indicative of strong prototypicality for the high-status group and therefore lead to the attribution of future occupational success. Five experiments, using different high- and low-status groups, confirmed the hypothesis that people will attribute high occupational success to high-status persons who allegedly scored poorly on an achievement test in which a low-status group in general excelled relative to a high-status group. This effect was shown to be mediated by the attribution of prototypicality for the high status group.

Keywords: (gender) stereotypes, attribution of success, attribution of failure, low and high status groups

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Introduction

There is little doubt that people in contemporary western societies are encouraged to strive for success, and that success is viewed as something positive. People who succeed in their occupation, in school, on a task, or in a specific test are very likely to receive more positive evaluations than those who fail, although the strength of these positive reactions might be moderated by other factors, such as the group membership of the actor or the attribution of the achievement (e.g., Deaux & Emswiller, 1974; Etaugh & Brown, 1975; Goldberg, 1968; Swim, Borgida, Maruyama, & Myers, 1989; Weiner & Kukla, 1970; Yarkin, Town, & Wallston, 1982). However, past research has already shown that under certain conditions, being competent and successful can incur social costs (see work on fear of success by Horner, 1968, 1972), or even lead to a backlash effect regarding social attractiveness (Rudman 1998; Rudman & Glick, 1999, 2001; see also Heilman, Wallen, Fuchs, & Tamkins, 2004), as we will discuss below. The present paper takes the analysis of the social gains and costs of success and – especially – failure a little further and in a new theoretical direction by arguing and presenting some empirical evidence that, under specific conditions, *failure* rather than success might actually become an asset (in terms of positive projections for future occupational success).

We started our research on this "failure-as-an-asset" effect (FA-effect) by first assuming that a member of the high status group 'men' will profit from failure in terms of predicted occupational success when men in general are simultaneously outperformed by women in general on the achievement dimension in question. This assumption was based on three different traditions of research that are reviewed below: (1) research on the "think-manager-think-male" stereotype that associates

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prototypically masculine characteristics with the prototypical successful manager, (2) research on the consequences of violating the prescriptive aspects of gender stereotypes – the backlash effect, and (3) research within the context of social identity theory that predicts which members of a group will be seen as more or less prototypical of the group. Bringing together these different strands of research allows for the prediction that men who perform poorly in a certain achievement domain where women outperform men will be seen as prototypically masculine and will therefore be expected to be highly successful in their future occupation.

However, although we started our research in the context of gender stereotypes, we propose that the FA-effect is not limited to this field, but can apply more generally to members of high status groups if a member achieves high prototypicality for the high status group by his or her poor performance.

Think-manager-think-male, or the advantage of being perceived as masculine

The first argument here is that being masculine in our society is associated with occupational success or having the competence to become a leader. Men in western societies are generally more successful in their occupations than women, to the extent that there is a salary gender gap favoring men, and men are over-represented in higher management positions (e.g., in business and universities) (see Matlin, 2000). For women there is a "glass ceiling," an impenetrable barrier that impedes women from advancing to the very top of organizational hierarchies (Morrison, White, & Van Velsor, 1987; see also Heilman, 2001). Women are generally occupationally disadvantaged by gender stereotypes about what women and men are like. Men are viewed as possessing achievement-oriented traits (labeled as *agentic*), like being forceful, decisive and independent; whereas social- and service-oriented traits (labeled

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communal), like being kind, sympathetic and concerned about others, are seen as highly descriptive for women (e.g., Rudman, 1998).

There is evidence that these traditional stereotypes about women and men spill over into the workplace (e.g., Heilman, Block, & Martell, 1995), and that stereotypically masculine traits are believed to be necessary to become a good manager and rise to higher positions (see the so-called "think-manager-think-male" stereotype, Heilman, Martell, & Simon, 1988; Schein, 2001; Stahlberg & Sczesny, 2001). The resulting *lack of fit* between stereotypically feminine traits and the masculine competencies assumed necessary for male-typed managerial positions can be the basis for biased judgments about women's performance and even discriminatory hiring practices (Heilman, 1983, 1995). Furthermore, since being masculine is viewed as an asset for a successful leadership career, it is not only women in general who suffer from a lack of fit, but also men who are perceived as having feminine characteristics such as physically feminine features (Sczesny, Spreemann & Stahlberg, 2006) and even feminine perfumes (Sczesny & Stahlberg, 2002).

Prescriptive gender stereotypes and the penalization of deviants

The second point in our line of argument is that violating sex role prescriptions can be costly for both women and men - performing well on a task that is not consistent with one's sex, or performing poorly on a task that is sex-consistent, may attract unfavorable evaluations. For example, if women engage in agentic behaviors to overcome descriptive stereotypes, they are indeed perceived to be as competent as agentic males (e.g., Glick, Zion, & Nelson, 1988; Heilman, Wallen, Fuchs, & Tamkins, 2004; Rudman, 1998; Rudman & Glick, 1999), but at the same time they suffer from negative consequences in terms of social and economic reprisals, an effect

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known as the *backlash effect* (Rudman, 1998). Agentic women are perceived to be deficient on social dimensions (i.e., *social backlash*), they are less likely to be hired for a leadership position (i.e., *economic backlash*), and may even be sabotaged by others (Rudman & Fairchild, 2004).

Backlash for agentic women is likely to occur because these women are perceived to violate prescriptive aspects of gender stereotypes (i.e., they are perceived as unfeminine) about how woman (and men) *should be and behave*, and about how women (and men) *should not be and not behave*. Women ought to be communal but not agentic, whereas men ought to be agentic but not communal. Again, this implies that men, like any other social norm violator (Cialdini & Trost, 1998), can also encounter backlash for violating prescriptive norms. Whenever men are perceived as highly communal and thus as unmanly, they are at risk of having a lack of competence attributed to them (Rudman, 1998; Rudman & Glick, 1999, 2001).

As a result, deviance from prescriptive gender stereotypes (or failure to match the stereotype) has negative consequences for both sexes, but these take different forms (i.e., women are perceived as less liked, men as less competent). Thus, failure in achievement domains, abilities, or skills in which people stereotypically ought to be good (i.e., non-agentic men or non-communal women) coincides with social and/or economic reprisals, since failure is associated with gender atypicality. This suggests that people might also fear being perceived as gender-atypical. Indeed, failure in same-sex domains is accompanied by more perceived distress than failure in cross-sexed domains, this being especially true for men (e.g., Feather, 1975; Feather & Simon, 1975; Horner, 1968, 1972).

Important in light of our line of argument is that because gender stereotypes also prescribe how women and men should *not* be (e.g., Burgess & Borgida, 1999; Eagly,

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1987), failure in cross-sexed domains, abilities, and skills might go with perceived gender typicality. For example, a man might be perceived as a prototypical man with stereotypically masculine attributes when he fails to be a good listener, a communal ability ascribed to women but not to men. As a consequence of this attributed gender prototypicality (i.e., masculinity), he might be perceived as a suitable leader due to the "think-manager-think-male" stereotype discussed above (e.g., Cejka & Eagly, 1999; Heilman, 1983). Consequently, he should be perceived as occupationally successful – failure in this case is an asset.

When failure can make men more prototypical for their group and thereby promote the attribution of occupational success

According to social identity theory, people are perceived as more or less prototypical of a group to the extent that they possess attributes that are thought to be associated with this group and not with another group (e.g., Hogg, 2005, 2006). The defining attributes of groups are cognitively represented in the form of prototypes, which are conceptualized as "fuzzy sets of attributes (beliefs, attitudes, feelings, and behaviors) that simultaneously capture similarities among group members and differences between members of one group and another group" (Hogg, 2005, p 245). The perceived prototypicality of each ingroup member depends on meta-contrast based perceptions (i.e., Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), which are thought of as the mean absolute difference between the ingroup position and each outgroup position relative to the mean absolute difference between the ingroup position and each other ingroup position (see Hogg, 2001, 2005; Tajfel, 1959). A certain group member (e.g. a specific man) will therefore be perceived as more masculine and less feminine, the more he resembles the male prototype, the less he resembles the female prototype, the higher the intragroup similarity, and the greater

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the perceived difference between the male and the female group. Note here that prototypicality is determined not only by how well group members match their own group prototype, but also by how remote they are from the prototype of a salient outgroup (see Hogg, 2005).

Social identity theory argues that group members are very attentive to the group prototype and to how well others match it, because it defines the group and renders the group distinct from other groups as long as there is sufficient consensus about the group prototype (e.g., Haslam, Oakes, McGarthy, Turner, & Onorato, 1995). The importance of group prototypicality is also highlighted by the fact that even highly successful people (i.e., over-achievers or "tall-poppies"), an example of positive deviants, are not liked very much and often invoke feelings of malicious pleasure if they experience failure (i.e. schadenfreude) (e.g., Feather, 1994; Feather & Sherman, 2002; see also Leach, Spears, Branscombe, & Doosje, 2003). In most cases neither positive nor negative deviants contribute to a consensual prototype or to the entitativity of the group (e.g., Hogg, 2005).

Returning to the prediction of an FA-effect, we argue that group prototypicality will be fostered by being close to the ingroup prototype and simultaneously far away from the outgroup prototype, and that this prototypicality will influence further social judgments. In other words, high masculine prototypicality should be attributed to a male whose achievements on a certain test are close to the average male achievement and remote from the average female achievement, and this attribution will influence expected occupational success. Being prototypical can be accomplished by either performing well when men in general outperform women, or performing poorly when women in general outperform men. The analogous process should hold for a female. Failure as an asset, however, will be the consequence only for males, because only

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masculine prototypicality is associated with occupational success (cf. "think-manager-think- male" phenomenon).

Think of a high status group – think occupational success: Why the failure- as-an-asset effect should be a more general principle in evaluating members of a high status group

We have argued above that men will profit from failure more than from success if success is a female stereotypical attribute in that domain (women outperform men). We can extend this argument to other high status groups, to formulate a more general principle about achievement evaluation of members of high and low status groups. Social groups often vary in their perceived value or prestige, their relative group status (Ridgeway, 2001). Members of high-status groups (e.g., men and managers) are viewed as more valuable and competent persons and have more positive attitudes attributed to them. They also objectively possess more social and economic power than members of groups with lower social status (e.g., women and laborers) (Ridgeway, 2001; see also Sachdev & Bourhis, 1987, 1991). Thus, social categories often carry group status information that can affect social relations and provide a stable system of power and status inequalities (i.e., status value asymmetry) between groups (Jackman, 1994).

As a consequence, abilities, skills, or domains in which higher status groups excel are valued, whereas domains in which lower status groups outperform their higher status counterparts are devalued and regarded as having little or no utility in gaining status-relevant rewards (e.g., Schmader, Major, Eccleston, & McCoy, 2001). A consequence of this would be that failure in domains with little utility would be less likely to elicit negative evaluations than failure in high utility domains. However, applying this reasoning to high and low status groups, we argue that success by a

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member of a high status group in a domain where the high status group outperforms the low status group, and failure in a domain where the low status group outperforms the high status group, will both elevate perceived prototypicality for the high status group member. As a consequence, he or she will be perceived as occupationally successful. After all, one defining feature of prototypical members of a high status group is that they are successful.

Summary of predictions

In sum, our predictions of why failure can sometimes become an asset for men and members of other high status groups are based on past research that has shown that masculine prototypicality, as well as the general prototypicality for a high status group, is associated with occupational success, and that this prototypicality can be achieved by either success in a masculine (high status group) domain, or by failure in a feminine (low status group) domain.

Experiment 1

In Experiment 1 we tested the prediction that members of a high status group – here, men - can actually profit from individual failure. This holds true for individual failure in a domain where the low status group (i.e., women) in general outperforms the high status group (i.e., men). In contrast, individual failure by a low status target was not expected to be advantageous, regardless of the relative group performance.

Method

Participants and Design

Participants were fifty-six female and fifty-six male students at the University of Mannheim (N = 112, mean age 23.12). In exchange for 1 Euro, they participated in single 10 minute sessions in an experiment labelled “perceiving persons.”.Experiment

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1 had a 2 (individual performance: good vs. poor) x 2 (relative gender performance: men better vs. women better) x 2 (sex of target) factorial design, with participants randomly assigned to conditions.

Procedure

On screen, participants were instructed to evaluate a target person who had allegedly performed an intelligence test that assessed "logical thinking"[1] (named ATLG-1) on different dimensions. The target person was either Brigitte S. (female target) or Peter M. (male target). Both names are common German first names.

Participants were informed that the ATLG-1 was a valid instrument for assessing logical thinking, that it was developed by the department of Research and Intelligence, and that it had been validated on a sample of 5,000 people. Subsequently, participants were shown the individual ATLG-1 test score of the target person (a "good" performance of 75 points out of 100, or a "poor" performance of 55), and were informed about the average test scores for men and women - men outperformed women (men-better condition: men 71 points out of 100, women 59), or women outperformed men (women-better condition: women 71 points, men 59). For example, participants who had to evaluate the male target with an individually low test score in the "women-better" condition received the following information: "Peter M. received a test score of 55 points on the ATLG-1. Women generally received an average test score of 71 points, compared to an average score of 59 points for men." To ensure that participants paid close attention to this information, they were asked to copy the test scores from the screen to a response sheet, ostensibly to facilitate data analysis. Before completing the dependent measures, participants had to hand this response sheet to the experimenter.

Dependent Measures

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After presentation of the test scores, participants completed the dependent measures in the following order. A 7-point Likert-type scale was used for all items (. 1 I absolutely disagree, 7 I absolutely agree). Five items measured the predicted occupational success of the target person – they formed a scale measuring"predicted occupational success" (Cronbach's *alpha* = .95). The corresponding items were: "Peter M. or Brigitte S. … will acquire a leading position, will get ahead in his or her occupation, will achieve a high income, will attain a high occupational status, and will be occupationally successful." As a manipulation check, participants were asked to recall the test scores for the individual performance of the target person and the average scores for women and men on the ATLG-1. Finally, students were paid for their participation and fully debriefed.

Results

All 112 participants remembered the test scores correctly and remained in the subsequent analysis. Our hypothesis was that participants would predict high occupational success for the male target if he performed poorly on the ATLG-1 and women as a category outperformed men on this test (FA-effect). When men outperformed women on the ATLG-1, we expected an individually good performance to be associated with predictions of high occupational success, regardless of the sex of the stimulus person. We expected no such FA-effect for a female target. For women, being individually good was expected to be associated with occupational success in the future. Thus, we predicted a three-way interaction between relative gender performance, individual performance, and sex of target.

Predicted occupational success

We performed 2 (relative gender performance) x 2 (individual performance) x 2 (sex of target) univariate analysis of variance (ANOVA).[2] Table 1 displays the

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target's predicted occupational success as a function of relative gender performance, individual performance, and sex of target. The predicted three-way interaction between relative gender performance, individual performance, and sex of target was significant, $F(1, 104) = 4.85$, $p < .05$. Contrast analyses showed that when men outperformed women, participants predicted a higher occupational success for the male target when the individual test performance was good ($M = 4.31$) compared to when it was poor ($M = 3.27$; $F(1, 104) = 4.17$, $p < .05$, $r = .22$).[3] In comparison, when women outperformed men, higher occupational success was ascribed to the male target when the individual performance was poor as compared to when it was good (5.07 vs. 3.43), $F(1, 104) = 12.85$, $p < .001$, $r = .33$ (FA-effect). Regarding the female target, the results were as follows: when men outperformed women, higher occupational success was attributed to her when she performed well as compared to when she performed poorly (4.84 vs. 3.86), $F(1, 104) = 4.59$, $p < .05$, $r = .21$, whereas when women outperformed men, participants did not differ in their ratings between individually good and poor performance (3.29 vs. 2.97), $F < 1$.[4]

Discussion

Experiment 1 provided evidence for the predicted FA-effect for males. The male target received positive projections for his future occupational success when he performed poorly on an achievement test in which women as a category outperformed men, but not when men outperformed women. There was no such effect for the female target - she received positive predictions, if at all, only if she performed well. These results indicate that men can benefit from underperforming at feminine tasks. Theoretically, we assume that this FA-effect is mediated by strong attributions of masculinity in the case of men's failure in a feminine domain. However, Experiment 1 did not test this mediation.

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Experiment 2 was designed to test this mediation. It is assumed that a man whose performance is poor on a test where women outperform men may be perceived as a very typical male who possesses typically male attributes, which in turn leads to the prediction of high occupational success. There is some evidence that predominantly masculine attributes are considered necessary for successful managerial careers, which is why high occupational success should be attributed to masculine men (see e.g., Rudman & Glick, 1999; Schein, 2001). The FA-effect should not be found with female targets, regardless of relative group performance, because (1) a woman who performs poorly on a test where men outperform women might be seen as prototypically feminine, which will prevent positive projections for her occupational success (see the think-manager-think-male phenomenon), and (2) a woman who performs well on a test were men outperformed women might very well be perceived as masculine, but at the same time as lacking prescriptive feminine traits, a deficiency that can cause penalization (e.g., Rudman & Fairchild, 2004), or she might not have any masculinity attributed to her.

Experiment 2

Method

Participants and Design

Participants were 112 (56 females and 56 males) students at the University of Mannheim (mean age: 22.52). They participated in exchange for 2 Euros in a 20-minute experiment labeled “social judgments,” . Analogous to Experiment 1, the experiment had a 2 (individual performance: good vs. poor) x 2 (relative gender performance: men better vs. women better) x 2 (sex of target) factorial design, with

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participants randomly assigned to conditions. Attributed masculinity was assessed as a covariate.

Procedure

Procedurally, Experiment 2 was very similar to Experiment 1. Again, after reading the introductory information described in Experiment 1, participants were presented with three test scores on a screen: an individual score for either a female or a male target (Brigitte S. or Peter M.), and average test scores of women and men on the ATLG-1. All scores featured the same values as those in Experiment 1.

Dependent measures

Predicted occupational success. "Predicted occupational success" was assessed as described in Experiment 1 (Cronbach's *alpha* = .96).

Covariates. Participants evaluated the gender typicality of the target, via a German version of Bem's sex-role inventory (1974; Schneider-Düker & Kohler, 1988). This scale contains three subscales: masculinity (typically masculine characteristics like assertiveness, competitiveness, and dominance), femininity (typically feminine characteristics like tenderness, shyness, and gentleness), and sex-unrelated, socially desirable characteristics (e.g., friendliness, reliability, and truthfulness). Each subscale consists of 20 items. The scales ranged from 1 = not at all true to 7 = absolutely true. All three subscales displayed good reliability (masculinity: Cronbach's *alpha* = .96; femininity: Cronbach's *alpha* = .83; social desirability: Cronbach's *alpha* = .89) and were used as separate indices in the data analyses. At the end of the experiment, all participants were carefully debriefed and thanked for their participation.

Results

Unless otherwise noted, the data of 112 subjects were analyzed by 2 (individual performance) x 2 (relative gender performance) x 2 (sex of target)

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univariate analyses of variance (ANOVAs)[5]. Besides the predicted three-way interaction on the predicted occupational success already found in Experiment 1, we expected that the target's perceived masculinity would mirror this pattern. If, in a further step, the target's masculinity is controlled for, the three-way interaction on predicted occupational success should no longer be significant. Thus, the FA-effect should be mediated by perceived masculinity.

Predicted occupational success

Table 2 depicts the target's predicted occupational success as a function of relative gender performance, individual performance, and sex of target.

Again, and as predicted, the three-way interaction between relative gender performance, individual performance, and sex of target was significant, $F(1, 104) = 4.39$, $p < .05$. The data reliably replicated the FA-effect obtained in Experiment 1. As contrast analyses show, when women outperformed men, participants predicted greater occupational success for the male target person when individual performance was poor as compared to when it was good (4.96 vs. 3.80), $F(1, 104) = 6.35$, $p < .05$, $r = .24$, whereas the reverse pattern was found when men outperformed women (3.46 vs. 5.29), $F(1, 104) = 15.81$, $p < .001$, $r = .36$. For the female target, the results were as follows: the individual performance had no influence on the prediction of occupational success when women outperformed men (individually good vs. poor performance: 3.43 vs. 3.30), $F < 1$, $r = .03$, whereas when men outperformed women, an individually good performance led to higher prediction of occupational success than an individually poor performance (5.27 vs. 4.09), $F(1, 104) = 6.40$, $p < .05$, $r = .25$.[6]

Covariates

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Perceived masculinity. We also performed a 2 (individual performance) x 2 (relative gender performance) x 2 (sex of target) ANOVA on ratings of the targets' masculinity (means are reported in Table 2). This analysis yielded the predicted three-way interaction, $F(1, 104) = 5.87$, $p < .05$. Contrast analyses showed that when women outperformed men, the male target was perceived as more masculine in the case of a poor individual performance (5.09 vs. 4.16 for a good performance), $F(1, 104) = 7.39$, $p < .01$, $r = .26$. The reverse pattern was found when men outperformed women: the male target was rated as less masculine in the case of a poor performance (3.87 vs. 4.89 for a good performance), $F(1, 104) = 8.72$, $p < .005$, $r = .28$. The data for the female target were as follows: when women outperformed men, she was perceived as low in masculinity, independent of her individual performance (good vs. poor performance: 3.34 vs. 3.85), $F(1, 104) = 2.22$, $p > .13$; $r = .14$, whereas when men outperformed women, she was perceived as more masculine in case of a good individual performance (4.48 vs. 3.68 for a poor performance), $F(1, 104) = 5.47$, $p < .05$, $r = .22$. [7]

Perceived femininity. When the femininity subscale (Bem, 1974) was considered, the ANOVA yielded only a highly significant main effect for individual performance, $F(1, 104) = 25.93$, $p < .001$, $r = .45$). Targets who performed poorly were perceived as more feminine than those who performed well (4.13 vs. 3.67). The interaction of relative gender performance with individual performance with sex of target person was not significant, $F(1, 104) = 2.31$, $p > .13$ (means are reported in Table 2). No other effects were significant, with *p*s > .13.

Perceived desirable social characteristics. An ANOVA with the social desirability scale as a dependent variable yielded no significant effects (all *F*s < 1.).

Mediation of the FA-effect

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In order to test the hypothesis that the FA-effect is mediated by the target's masculinity, we ran the mediation testing procedure outlined by Baron and Kenny (1986). The regression analyses confirmed the hypothesized mediation of perceived masculinity. In step one, the analysis confirmed a significant three-way interaction of relative gender performance x individual performance x sex of target on target's perceived occupational success ($\beta = .45$, $p < .05$). In step two, the target's perceived masculinity predicted perceived occupational success ($\beta = .58$, $p < .001$), and in step three, the relationship between the three-way interaction and predicted occupational success was reduced to non-significance when predicted occupational success was regressed on the three-way interaction and target's perceived masculinity ($\beta = .21$, $p > .28$). In addition, Sobel's test (Sobel, 1982) indicated that the mediator (masculinity) carries the influence of the three-way interaction on prediction of occupational success ($z = -2.65$, $p < .001$).

Unexpectedly, when perceived masculinity was regressed on the three-way interaction and predicted occupational success, the relationship between perceived masculinity and the three-way interaction was also reduced to non-significance ($\beta = .32$, $p > .10$). At step one and two, respectively, the three-way interaction predicted target's perceived masculinity ($\beta = .53$, $p < .05$), and predicted occupational success predicted target's perceived masculinity ($\beta = .58$, $p < .001$). The Sobel test was also significant ($z = 2.27$, $p < .05$). Therefore, the results showed that although the mediational effect of masculinity on predicted occupational success could be confirmed, the reverse mediation was unexpectedly also true.

Discussion

Experiment 2 replicated Experiment 1's findings of a reliable FA-effect and also confirmed the prediction that this effect should only be found for male targets.

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Furthermore, as predicted, we found parallel patterns for the target's predicted occupational success and perceived masculinity, indicating that men have ascribed to them high future occupational success and strong masculinity when failing on a task where women outperformed men, but not when failing on a task where men outperformed women. As in Experiment 1, however, we did not find the FA-effect for the female target. In no condition did an individually poor performance lead to a positive occupational projection or high masculinity ratings for a female target.

Unfortunately, we found only limited support for the suggested mediational process model. When we controlled for perceived masculinity, the three-way interaction on target's predicted occupational success ceased to be significant, but the reverse mediation was also found. Consequently, the causal direction of the mediation was analyzed in a different way in Experiment 3. The unpredicted result of the reverse mediation might be due to the closely related operationalizations used to assess the target's perceived masculinity and the target's predicted occupational success. The characteristics selected to assess the target's masculinity (e.g., assertiveness, competitiveness, and dominance) might too closely resemble the items that covered the prediction of occupational success. Both scales, therefore, might not be adequate measures for identifying the predicted mediational process. A different approach was needed to capture the process underlying the observed effects.

Experiment 3

Two major changes were made in Experiment 3 to address this problem: (1) we created a new measure to more specifically assess the target's gender typicality, and (2) we externally manipulated the target's gender typicality to capture more directly the expected causal effect of perceived masculinity.

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Our hypothesis was that for a male target whose masculinity is denied a priori, the FA-effect would no longer occur. On the other hand, when a target's masculinity is incontrovertible a priori, the FA-effect should be strengthened. In addition, when a female target is externally characterized as very masculine, she might also profit from failure in a male-typed domain (at least when she is not - at the same time - perceived as violating prescriptive norms of femininity, see the work of Rudman and Heilman cited above). Thus, we expect an analogous FA-effect for the female target when high masculinity is induced a priori.

Method

Participants and Design

Participants were 216 students at the University of Mannheim (mean age: 24.69). They participated in exchange for 2 Euros in a 20-minute experiment labeled "social judgments." Experiment 3 had a 2 (relative gender performance: men better vs. women better) x 2 (individual performance: good vs. poor) x 2 (sex of target) x 3 (gender-typicality of target: feminine vs. neutral vs. masculine) factorial design, in which participants were randomly assigned to conditions.

Procedure

Procedurally, Experiment 3 was very similar to Experiments 1 and 2, with the following changes. In addition to the information participants were given in Experiments 1 and 2, they received individuating information about the target (name, day of birth, place of birth, place of residence, schooling and education, and personal hobbies). The individuating information was delivered in the form of a curriculum vitae, thereby manipulating the gender-typicality through the target's personal hobbies. Female gender typicality was manipulated by the feminine hobbies of dancing and interior decorating, male gender typicality by the masculine hobbies of

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cars and soccer, and neutral gender typicality by the gender non-aligned hobbies of movies and volleyball. For example, in the masculine gender typicality condition, the information about the female target read as follows: "Brigitte S., born 12/22/1979 in Bochum/Germany, living in Dortmund/Germany, enrolled at the University of Dortmund, hobbies: cars and soccer." Next, parallel to Experiment 2, participants were presented with three test scores on a screen: an individual score for either the female or the male target (Brigitte S. or Peter M.), and average test scores for women and men on the ATLG-1. All scores had the same values as those in Experiment 2.

Dependent measures

Predicted Occupational Success. A 9-point scale was used for all items (1 I absolutely disagree, 9 I absolutely agree). "Predicted occupational success" was measured with nine items (Cronbach's *alpha* = .94). The corresponding items were: "Peter M. or Brigitte S. . . . will acquire a leading position, will get ahead in his or her occupation, will achieve a high income, will attain a high occupational status, will be occupationally successful, will acquire a leading position in an engineering firm,[8] will acquire a leading position as a business manager, will acquire a leading position as a bank manager, will be occupationally successful in the scientific world." Thus, besides the more general items about the target's predicted occupational success that were used in Experiments 1 and 2, four more specific items were included to measure success in certain occupational fields.[9]

Covariates. Participants then evaluated the typicality of the target person for the male group on a five items scale (Cronbach's *alpha* = .97): "The target person … has a typical male appearance, behaves as a typical male, has typical male attributes, will work in a typical male occupation, and has typical male interests." The typicality for the female group was measured by exchanging the word male with the word

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female (Cronbach's *alpha* = .91). Finally, as a manipulation-check, participants were asked to indicate on two items (Cronbach's *alpha* = .97) how typically masculine or feminine they perceived the hobbies of the target. At the end of the experiment, all participants were carefully debriefed and thanked for their participation.

Results

Unless noted otherwise, the data of 216 subjects were analyzed by 2 (individual performance) x 2 (relative gender performance) x 2 (sex of target) x 3 (gender-typicality of target) univariate analyses of variance (ANOVAs).[10]

Manipulation of the gender-typicality of the target

The manipulation of the target's gender typicality was highly successful, $F(1, 192) = 113.11$, $p < .001$. The hobbies in the feminine typicality condition were judged as more feminine ($M = 2.28$) than the hobbies in the control condition ($M = 3.72$), $F(1, 192) = 38.70$, $p < .001$, $r = .41$. The hobbies in the masculine typicality condition were judged as more masculine ($M = 5.74$) than the hobbies in the control condition, $F(1, 192) = 76.15$, $p < .001$, $r = .53$.

Predicted occupational success

Table 4 depicts the target's predicted occupational success as a function of relative gender performance, individual performance, sex of target, and target's gender typicality. The predicted four-way interaction was significant, $F(2, 192) = 3.60$, $p < .05$.[11]

To clarify the data pattern that led to the four-way interaction, we will sequentially discuss the three-way interaction of relative gender performance, individual performance, and sex of target, broken down by the fourth factor "induced gender typicality." First, when we analyzed the control condition of the target's gender typicality (gender neutral hobbies), the data reliably replicated the FA-effect already

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demonstrated in Experiments 1 and 2 (see Table 3) only for male targets. Here, the three-way interaction of relative gender performance, individual performance, and sex of target was significant $F(1, 64) = 5.62$, $p < .05$. When women outperformed men, participants predicted greater occupational success for the male target when his performance was poor compared to when it was good (6.57 vs. 4.52), $F(1, 64) = 10.42$, $p < .05$, $r = .37$, whereas the reverse pattern was found when men outperformed women (individually good vs. poor performance: 6.54 vs. 4.92), $F(1, 64) = 6.51$, $p < .05$, $r = .30$. For the female target, the individual performance had no influence on the prediction of occupational success when women outperformed men (individually good vs. poor performance: 5.61 vs. 4.97), $F(1, 64) = 1.06$, $r = .12$, whereas when men outperformed women, an individually good performance led to a prediction of greater occupational success than an individually poor performance (5.83 vs. 4.47), $F(1, 64) = 4.59$, $p < .05$, $r = .26$.

Second, and as predicted, in the feminine typicality condition (feminine hobbies), the two-way interaction of individual performance x relative gender performance was significant, $F(1, 64) = 10.36$, $p < .01$, but not the three-way interaction, $F(1, 64) = 1.76$, $p > .18$. When men outperformed women, participants predicted greater occupational success for the target, independent of the target's sex, when the individual performance was good (5.54 vs. 3.50 for poor performance), $F(1, 64) = 18.41$, $p < .001$, $r = .47$. No significant difference between individual good and poor performance (4.06 vs. 4.18) was found when women outperformed men, $F < 1$, $r = .03$.

Third, and again as predicted, for the masculine typicality condition (masculine hobbies), the two-way interaction of individual performance x relative gender performance was once more highly significant, $F(1, 64) = 53.76$, $p < .001$, but

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the three-way interaction was not, $F(1, 64) = 1.28$, $p > .26$. When men outperformed women, participants predicted greater occupational success for the target, independent of the target's sex, when the individual performance was good (7.27 vs. 5.22 for poor performance), $F(1, 64) = 22.65$, $p < .001$, $r = .51$. The reverse was true when women outperformed men: an individually poor performance led to a prediction of greater occupational success than an individually good performance (6.68 vs. 4.27), $F(1, 64) = 31.30$, $p < .001$, $r = .57$.

Covariates

Perceived masculinity. Table 4 shows the target's masculinity as a function of the target's gender typicality, relative gender performance, individual performance, and sex of target. The predicted four-way interaction was significant, $F(2, 192) = 5.05$, $p < .05$. As can be seen in Table 4, the pattern for perceived masculinity paralleled that for predicted occupational success. [12]

First, when the gender typicality control condition was analyzed in a supplementary analysis, the predicted three-way interaction of relative gender performance, individual performance, and sex of target person was significant $F(1, 64) = 10.13$, $p < .005$. When women outperformed men, participants ascribed greater masculinity to the male target when his performance was poor compared to when it was good (5.82 vs. 2.87), $F(1, 64) = 16.54$, $p < .001$, $r = .45$, whereas the reverse was true when men outperformed women (individually good vs. poor performance: 5.29 vs. 3.87), $F(1, 64) = 3.83$, $p < .06$, $r = .24$. For the female target, the individual performance had no influence on the perception of masculinity when women outperformed men (individually good vs. poor performance: 3.49 vs. 3.31), $F < 1$, $r = .10$, and when men outperformed women (3.47 vs. 3.40), $F < 1$.

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Second, in the feminine typicality condition, the predicted two-way interaction of individual performance x relative gender performance was significant, $F(1, 64) = 14.36$, $p < .001$, but, as predicted, the three-way interaction was not $F(1, 64) = 1.46$, $p > .20$. When men outperformed women, participants ascribed greater masculinity to the target, independent of the target's sex, when the individual performance was good (3.71 vs. 2.46 for poor performance), $F(1, 64) = 12.44$, $p < .001$, $r = .40$. When women outperformed men individually, good performance led to a lower perception of masculinity than an individually poor performance (2.18 vs. 2.94) $F(1, 64) = 4.60$, $p < .05$, $r = .26$.

Third, in the masculine typicality condition, the predicted two-way interaction of individual performance x relative gender performance was highly significant, $F(1, 64) = 58.54$, $p < .001$, but the three-way interaction of relative gender performance, individual performance, and sex of target was also marginally significant, $F(1, 64) = 3.87$, $p = .054$. Looking at the three-way interaction, it is obvious that for both male and female targets the expected pattern of the two-way interaction was found, but the effect was stronger for male than for female targets.

The three-way interaction was as follows: when women outperformed men, participants ascribed greater masculinity to the male target when his performance was poor (7.20 vs. 3.73 for good performance), $F(1, 64) = 24.94$, $p < .001$, $r = .53$, whereas the reverse pattern was found when men outperformed women (individually good vs. poor performance: 8.56 vs. 4.96), $F(1, 64) = 24.93$, $p < .001$, $r = .53$. The same, though somewhat weaker, pattern emerged for the female target: when women outperformed men, participants ascribed greater masculinity when her performance was poor compared to when it was good (5.80 vs. 3.58), $F(1, 64) = 10.21$, $p < .01$, $r = .37$, whereas the reverse pattern was found when men outperformed women

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(individually good vs. poor performance: 6.71 vs. 4.76), $F(1, 64) = 7.87$, $p < .01$, $r = .33$.

Perceived femininity. Female targets were perceived as more feminine than male targets (4.03 vs. 3.47, $F(1, 192) = 12.79$, $p < .001$, $r = .25$). The main-effect of gender-typicality was also highly significant (typically feminine: $M = 5.02$ vs. gender neutral: $M = 4.10$ vs. typically masculine: $M = 2.14$), $F(2, 192) = 116.55$, $p < .001$. The interaction of sex of target x gender typicality was significant, $F(2, 192) = 5.69$, $p < .05$. In the gender-typicality control condition, the female target was perceived as more feminine than the male target (4.75 vs. 3.44). In the feminine typicality condition, both female and male targets were perceived as equally high in femininity (5.14 vs. 4.89), and in the masculine typicality condition, both female and male targets were seen as equally low in femininity (2.21 vs. 2.08). The four-way interaction was not significant, $F < 1$. No other effects were significant, with $p > .11$.

Mediation of the FA-effect

The regression analyses (following Baron & Kenny, 1986) strongly supported our hypothesized mediational effect of perceived masculinity on predicted occupational success. In step one, the four-way interaction of gender typicality x relative gender performance x individual performance x sex of target predicted the target's predicted occupational success ($\beta = .25$, $p < .05$). In step two, the target's perceived masculinity predicted the target's predicted occupational success ($\beta = .63$, $p < .001$), and in step three, the relationship between the four-way interaction and predicted occupational success was reduced to non-significance when predicted occupational success was regressed on the four-way interaction and the target's perceived masculinity ($\beta = .06$, $p > .39$). The Sobel test was also highly significant ($z = 4.89$, $p < .001$).

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In line with our argument, if perceived masculinity was alternatively regressed on the four-way interaction and predicted occupational success, the relationship between perceived masculinity and the four-way interaction was still significant (β = .22, $p < .05$). In steps one and two, respectively, the four-way interaction predicted the target's perceived masculinity (β = .33, $p < .05$), and predicted occupational success predicted the target's perceived masculinity (β = .63, $p < .001$). The results showed, in line with our assumptions, that perceived masculinity mediated the effect on predicted occupational success, but that predicted occupational success did not mediate the effect on perceived masculinity. [13]

Discussion

The results of Experiment 3 exactly upheld our hypotheses. With a new measure that was conceptually more independent of predicted occupational success, and by externally manipulating the target's gender typicality, we were able to clearly demonstrate the causal role of gender typicality (masculinity) in mediating the FA-effect. (1) When the perception of masculinity was externally blocked (female gender typicality condition), the FA-effect was no longer found for the male target. For a male target who endorsed feminine hobbies, failing at the task could obviously no longer be attributed to high masculinity. Instead, this failure must be due to other factors (e.g., real incompetence) that are no longer perceived to be positively associated with occupational success, and thus the male target was no longer expected to be successful. (2) When there was no individuating information (gender typicality control condition), the same reliable pattern of results emerged as in Experiments 1 and 2. The FA-effect was found for the male but not the female target. (3) When more direct cues of target's masculinity were made available through information that the

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target endorsed masculine hobbies (male gender typicality condition), the FA-effect was predicted and found not only for the male, but also for the female target.

Thus, the FA-effect can occur for both sexes provided that the target is explicitly perceived as very masculine, and for neither sex when the target is perceived as behaving in a feminine way. Mediational analyses provided additional support for the causal role of masculinity. The four-way interaction on the projection of occupational success ceased to be significant when perceived masculinity was introduced as a covariate. Importantly, the reverse mediation was not found in this Experiment, where we took care to avoid a conceptual overlap of covariate and dependent variable.

What we have learned from Experiments 1 through 3 is that an FA-effect exists in the gender context, showing that masculine or agentic targets benefit from failure in a feminine domain because their failure indicates that they possess important masculine skills and abilities. What we have not learned so far is whether the FA-hypothesis holds true beyond the gender context. We argue that it is not limited to the gender context, but represents a general model of how group membership in high or low status groups will alter the perception of task performance by individual members of these groups who individually fail or succeed.

To pursue this idea, in Experiment 4 we sought to show that failure can be beneficial for members of a high status group, as long as they fail in a domain where a low status group outperforms the high status group. In this case failure should indicate the target's prototypicality for the high status group. In turn, this prototypicality should be associated with positive projections for future occupational success (e.g., Crocker, Major, & Steele, 1998; Major, Gramzow, McCoy, Levin, Schmader, & Sidanius, 2002).

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Experiment 4

Method

Participants and Design

Participants were 256 students (128 students of business administration and 128 students of the teaching profession) at the University of Gießen (mean age: 24.38), who participated, in exchange fro 2 Euros, in a 15-minute Experiment labeled "social judgments."

The experiment had a 2 (relative group performance: high status group [students of business administration, BA-group] better vs. low status group [students of the teaching profession, TP-group] better) x 2 (individual performance: good vs. poor) x 2 (status of target: member of a high status group [BA-student] vs. member of a low status group [TP-student]) factorial design, in which participants were randomly assigned to conditions.

These types of majors, BA and TP, were selected because pretest showed them to vary in perceived status among students. Independent of participants´ sex, the status of the BA study-courses were judged higher than that of the TP study-courses, $F(1, 24) = 25.75$, $p < .001$, $r = .72$. The target's sex and the participant's major (BA-student vs. TP-student) were included as control variables.

Procedure

Procedurally, Experiment 4 was very similar to Experiment 2. Participants were presented with three test scores on a screen: an individual score for either a low- or a high-status target (BA-student vs. TP-student), and average test scores of members of the low and high status group on the ATLG-1. All scores featured the same values as those in Experiment 2. The sex of the target person was also varied (Brigitte S. or Peter M.).

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Dependent Measures

Predicted Occupational Success. First the dependent measure "predicted occupational success" was assessed with the nine items used in Experiment 3 (Cronbach's *alpha* = .82).

Covariates. Participants evaluated the typicality of the target person for the high status group on a four item scale (1 I absolutely disagree, 9 I absolutely agree; Cronbach's *alpha* = .75). The corresponding items were: "The target person is … a typical student of business administration, untypical student of business administration, has typical interests of a student of business administration, and has typical attributes of a student of business administration." The typicality for the low status group (Cronbach's *alpha* = .57) was measured accordingly by replacing business administration with teaching profession. At the end of the experiment all participants were carefully debriefed and thanked for their participation.

Results

Unless otherwise noted, the data of 256 subjects were analyzed by 2 (individual performance) x 2 (relative group performance) x 2 (status of target) univariate analysis of variance (ANOVAs).[14]

Predicted occupational success

The predicted three-way interaction between relative group performance, individual performance, and status of target person was significant, $F(1, 248) = 5.57$, $p < .05$ – reliably replicating the FA-effect already demonstrated in Experiments 1 through 3 (see Table 4). When the low status group outperformed the high status group, participants ascribed greater occupational success to the "high-status" target when individual performance was poor (5.36 vs. 4.10 for good performance), $F(1, 248) = 13.78$, $p < .001$, $r = .23$. The reverse pattern was found when the high status

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group outperformed the low status group, with lower ascribed occupational success in the former than the latter condition (4.72 vs. 6.08), $F(1, 248) = 15.58$, $p < .001$, $r = .24$. For the "low-status" target , when the low status group outperformed the high status group, individual performance had no influence on prediction of occupational success (individually good vs. poor performance: 4.20 vs. 4.52), $F < 1$, $r = .06$, whereas when the high status group outperformed the low status group, an individually good performance led to a prediction of somewhat greater occupational success (5.37 vs. 4.71 for poor performance), $F(1, 248) = 3.78$, $p < .06$, $r = .12$.[15]

Covariates

Perceived typicality for the high status group. The predicted three-way interaction of relative group performance, individual performance, and status of target person was significant, $F(1, 248) = 20.74$, $p < .001$ (see Table 4). When the low status group outperformed the high status group, the high-status target person was perceived as more typical of the high-status group with a poor individual performance than with a good individual performance (7.01 vs. 4.57); $F(1, 248) = 29.29$, $p < .001$, $r = .34$. The reverse was found when the high status group outperformed the low status group. The high-status person was perceived as more typical of the high-status group when s/he performed well rather than poorly (7.52 vs. 4.94), $F(1, 248) = 29.75$, $p < .001$, $r = .34$. For the low-status target person, when the low status group outperformed the high status group, the targets were perceived as equally low in typicality, independent of individual performance (poor vs. good performance: 4.39 vs. 4.56), $F < 1$; $r = .02$. When the high status group outperformed the low status group, the target was perceived as more typical of the high-status group when s/he performed well than poorly (5.57 vs. 4.67), $F(1, 248) = 3.62$, $p < .06$, $r = .13$.[16]

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Perceived typicality for the low-status group. When the low status group outperformed the high status group, the target was perceived as more typical of the low-status group (M = 4.80) than when the high status group outperformed the low status group (M = 4.38, $F(1, 248) = 5.57$, $p < .05$, r = .12). The three-way interaction was not significant, $F < 1$. See Table 4 for relevant means - .no other effects were significant, with ps > .14.

Mediation of the FA-effect

The regression analyses supported the hypothesized mediational effect of perceived typicality of the high status group on predicted occupational success. At step one, the three-way interaction of relative group performance x individual performance x status of target predicted the target's occupational success ($\beta = .27$, $p < .001$). At step two, the target's perceived typicality predicted the target's occupational success ($\beta = .52$, $p < .001$), and at step three, the relationship between the three-way interaction and predicted occupational success was reduced to non-significance when predicted occupational success was regressed on the three-way interaction and the target's perceived typicality ($\beta = .11$, $p > .10$). The Sobel test was also highly significant ($z = 3.96$, $p < .001$).

In line with our argument, if perceived typicality was alternatively regressed on the three-way interaction and predicted occupational success, the relationship between perceived typicality and the three-way interaction was still significant ($\beta = .21$, $p < .005$). At steps one and two, respectively, the three-way interaction predicted the target's perceived typicality ($\beta = .33$, $p < .01$), and occupational success predicted the target's perceived typicality ($\beta = .52$, $p < .001$). In line with our argument, the results showed that typicality for the high status group mediated the effect on

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predicted occupational success, but that predicted occupational success did not mediate the effect on typicality.[17]

Discussion

Experiment 4 replicated the FA-effect for members of a high status group (students of business administration), but not for members of a low status group (students of the teaching profession). Furthermore, we found support for our general notion that the FA-effect is mediated by the perception of typicality for the high status group. Thus, the FA-effect seems to represent a general phenomenon that holds true beyond the gender context. High-status group members can benefit from being inferior in an ability, as long as the ability is associated with a low status group.

Although individual test scores and relative group performance are pieces of information that can play a role in everyday situations such as school, hiring interviews and so forth, in Experiment 5 we wanted to highlight further practical implications and important consequences of the FA-effect in everyday life.

Therefore, we devised a new paradigm that differed in the following ways: (1) relative group performance was not varied by fictitious performances of low and high status groups, but was based on sex role stereotypes; (2) individual performance was not varied by merely presenting test scores, but by having a stimulus person verbally presenting an account of his or her abilities. The abilities were pre-selected to be only of minimal importance for occupational success. This was done to circumvent the problem that male job-relevant abilities might also be seen as more important to occupational success. (3) The general cover story was not person perception on the basis of comprehensive performance, but the evaluation of a potential job applicant who presented her- or himself in a job interview.

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Experiment 5

Experiment 5 used a role-play scenario in which participants were presented with information about two male applicants who had applied for a job at a multi-national German company. The aim was to show that job applicants could use the FA-effect strategically to amplify their group-prototypicality and, in turn, enhance their chances of getting hired. Based on the findings already reported, we expected that the perceived qualification of male applicants who were asked to mention a strength or a weakness in an ability would depend on the sex-typedness of that ability. Consistent with the FA-prediction, we expected that weakness in a feminine ability would result in higher perceived masculinity and, in turn, higher perceived qualification for a leading position than strength in a feminine ability.

Method

Participants and Design

Twenty-three female and twenty-three male students at the University of Mannheim (N = 46, mean age 23.00) participated, in exchange for 1 Euro, in a 15-minute experiment labelled "social judgments in an applied context."

The experimental design was a 2 (kind of statement: weakness versus strength) x 2 (sex-typedness of the ability: not sex-linked versus feminine) mixed model factorial, with repeated measures on the second factor. Participants, who were randomly assigned to between-participants conditions (participant's sex was controlled by assigning an equal number of females and males to each condition), were asked to evaluate two male applicants sequentially; the presentation order was counterbalanced. Because of the consistent finding that the FA-effect was only found for members of high-status groups (or for people who are viewed as very typical for the high-status group), we focussed solely on male targets in this experiment. The

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main dependent variable was a hiring decision made by participants. Perceived masculinity was assessed as a covariate..

Procedure

Participants were told they would learn about two male applicants who had applied for a leading position at a multi-national German company, and that they were to form an impression about both applicants sequentially. Participants read a one-page scenario in which they were asked to imagine being responsible for hiring decisions at that company. Both applicants (named Michael N. and Christian W.) were described as having been carefully selected out of a larger pool of applicants because their formal qualifications were comparable (e.g., education level, expertise, university degree). Michael N. and Christian W. had also supposedly been interviewed by the human relations (HR) manager. Both applicants had received identical questions that addressed general personality characteristics and idiosyncrasies, the purpose being to get a deeper impression of the applicants' character beyond their already known formal skills.

Participants were told that they would receive randomly selected written excerpts from the complete interviews of both applicants. These excerpts contained one question and the applicant's answer regarding his personal weakness or strength ("Apart from the occupational context, what personal weakness/strength do you have?"). After reading the statement made by the first applicant, participants completed a questionnaire before reading the statement made by the second applicant. Depending on the experimental condition, each pair of applicants discussed either a weakness or a strength (between-subjects factor). One applicant discussed a weakness/strength concerning a feminine ability, the other discussed a

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weakness/strength concerning a non-sex-related ability (within-subjects-factor). The order of presenting a feminine and non-sex-related ability was counterbalanced.

Four standardized statements were constructed to manipulate the factors of "kind of statement" (weakness versus strength) and "sex-typedness of ability" (not sex-linked versus feminine).[18] The applicants described being good (personal strength) or bad (personal weakness) in a feminine ability (dancing) or a non-sex linked ability (knowledge about movies). For example, the statement concerning a personal weakness in a feminine ability read as follows: "I am a very bad dancer. It could be said I have two left feet. Sometimes this is quite embarrassing, as when I stepped on my dancing partner's feet at my prom. Maybe I should have taken dancing classes, but once you lack the talent it seems very unlikely that you will ever become a good dancer."

Dependent Measures

Hiring decision. Participants first rated the probability that they would hire the applicant for the job ("Would you employ Michael N./Christian W.?") on a bipolar-scale ranging from -3 (very unlikely) to +3 (very likely). They then rated the applicant's qualification for a leading position ("How qualified for a leading position do you think Michael N./Christian W. is?"), with scores ranging from -3 (very unqualified) to +3 (very qualified). These two items were highly correlated and thus combined into a "hireability index" for applicant 1 (Cronbach's *alpha* = .77) and applicant 2 (Cronbach's *alpha* = .70).

Covariates. Thereafter, participants evaluated the gender typicality of the applicant via items from the German version of Bem's sex-role inventory (1974; Schneider-Düker & Kohler, 1988), on scales ranging from 1 (I absolutely disagree) to 7 (I absolutely agree). Four items out of the masculinity-subscale version were chosen

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to assess how masculine the applicant was perceived to be ("The applicant is… assertive, ambitious, masculine, and has a strong personality"). An additional item ("The applicant is a typical man") completed the five-item masculinity index, which had acceptable reliability (applicant 1: Cronbach's *alpha* = .72; applicant 2: Cronbach's *alpha* = .66). Finally, participants rated the femininity of the applicant on four items from the femininity-subscale ("The applicant is… affectionate, compassionate, feminine, and sensitive to the needs of others," and, "The applicant is a typical woman"), which had good reliability (applicant 1: Cronbach's *alpha* = .70; applicant 2: Cronbach's *alpha* = .85). After participants had completed both questionnaires, they were debriefed and dismissed by the experimenter.

Results

Unless otherwise noted, the data of 46 subjects were analyzed with 2 (kind of statement: weakness versus strength) by 2 (sex-typedness of ability: not sex-linked versus feminine) mixed model factorial ANOVAs, with repeated measurement on the second factor.

Hiring Decision

As predicted by the FA-hypothesis, the interaction of kind of statement and sex-typedness of ability was significant, $F(1, 44) = 14.09$, $p < .001$. Table 5 shows that the applicant who mentioned a weakness in a feminine ability was more likely to be hired than the one who mentioned a strength in that ability (0.70 vs. -0.28), $F(1, 44) = 7.02$, $p < .05$, $r = .37$), whereas in the case of the non-sex-linked ability, the applicant was less likely to be hired in the former than the latter condition (-0.54 vs. 0.46), $F(1, 44) = 7.62$, $p < .01$, $r = .38$). No other effect was significant, Fs <1.

Covariates

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Perceived masculinity. Parallel to the main dependent variables, the analysis of participants' masculinity ratings yielded the predicted interaction effect between kind of statement and sex-typedness of ability, $F(1, 44) = 21.04$, $p < .001$. As Table 5 illustrates, participants perceived the applicant with a weakness in a feminine ability as significantly more masculine than the one with a strength in that ability (4.37 vs. 3.38), $F(1, 44) = 10.87$, $p > .01$, $r = .45$), whereas in the non-sex-linked ability condition, the applicant was considered less masculine in the former than the latter condition (3.53 vs. 4.48), $F(1, 44) = 10.01$, $p < .01$, $r = .43$). No other effect was significant, Fs < 1.

Perceived femininity. As illustrated in Table 5, when the femininity ratings are considered, the interaction between kind of statement and sex-typedness of ability also became significant, $F(1, 44) = 22.35$, $p < .001$. While participants did not differentiate significantly in their ratings of applicants' femininity between a strength and a weakness in the non-sex-related ability condition (3.33 vs. 3.66), $F(1, 44) = 1.23$, $p > .12$, $r = .16$, in the feminine ability condition applicants were considered significantly more feminine when they stated a strength rather than a weakness in that ability (4.68 vs. 3.03), $F(1, 44) = 30.76$, $p > .001$, $r = .64$. In addition, stating a strength or weakness in the feminine ability condition rather than in the non-sex-linked ability led participants to attribute higher femininity to the applicant (3.86 vs. 3.50), $F(1, 44) = 10.64$, $p < .001$. This main effect, however, was qualified by the interaction described above.

Mediation of the FA-effect

To test the prediction that participants' hiring decision is mediated by the applicant's perceived masculinity, we conducted a 2 (kind of statement: weakness versus strength) x 2 (sex-typedness of ability: not sex-linked versus feminine) mixed

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factorial regression with perceived masculinity as covariate, reassessed on each level of the within-subjects factor (see Tabachnick & Fidell, 2001). The covariate "perceived masculinity" was significantly related to hiring decision, t (43) = 4.81, $p <$ .001. As expected, controlling for perceived masculinity reduced the interaction to non-significance, $t(43) = 1.35$, $p > .18$. Alternatively, controlling for perceived femininity in a separate analysis did not substantially weaken the interaction.

Discussion

Experiment 5 provided additional support for the FA-effect in a different and more naturalistic paradigm using a simulated hiring decision. Applicants were more likely to be hired and were considered more qualified for a leading position when they presented themselves as weak rather than strong on a typical feminine ability. In contrast, on an ability not related to feminine skills, applicants were better off presenting a strength rather than weakness. Perceived masculinity was shown to mediate these effects. Thus, Experiment 5 provides a first indication that the FA-effect can be used effectively for strategic self-presentation by members of high-status groups within the applied context of occupational hiring decisions.

General Discussion

The research reported in this article tested the assumption that, under certain conditions, failure instead of success can invite favorable evaluations and might in fact become an asset. Since there is evidence that social groups differ considerably in social status, with high-status groups such as men possessing more economic and social power than low-status groups such as women (e.g., Ridgeway, 2001), a perception that is also reflected in the think-manager-think-male stereotype (e.g., Schein, 2001; Stahlberg & Sczesny, 2001), people who closely fit the prototype of the

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high-status group could evoke positive projections regarding their future occupational success. The idea underlying the above assumption of a failure-as-an-asset (FA) effect is that failure by a member of a high status group can convey high ingroup prototypicality if the person's performance is close to the average ingroup achievement and at the same time far removed from the average outgroup achievement (e.g. if women in general outperform men in the domain in question) (see Hogg, 2005, 2006).

Failure as an asset for high status targets and its mediation

Across five experiments, we found reliable support for the predicted FA-effect. The effect was found for a member of a high-status group when the failure occurred in an achievement domain in which a group with lower social status outperformed the group with higher social status.

First, our results show that male success in a male domain as well as male failure in a female domain led to an attribution of high occupational success (Experiments 1 through 3). We also found reliable support for the notion that the target's attributed masculinity mediated the FA-effect. Achievement outcomes close to the average male achievement and far removed from the average female achievement fostered the attribution of masculinity and, as a further consequence, triggered high expectations of future career success.

Second, success by a high-status-target (BA-student) in a high-status domain (BA-students outperform TP-students) as well as failure by a high-status target in a low-status domain (TP-students outperform BA-students) again led to an attribution of greater occupational success (Experiment 4). This replication of the FA-effect for different high and low-status groups was again mediated by attributed prototypicality for the high-status group. Interestingly, across all studies we found no reversed effects

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for femininity ratings or prototypicality ratings for the low status groups. The extent to which targets were seen as possessing this low-status group prototypicality therefore did not account for the FA-effect. This stronger relationship of masculinity ratings to achievement parameters is in line with previous research showing that criteria such as self-confidence, career aspirations, and occupational success are better predicted by masculinity than femininity scores (see Abele, 2000; and for an overview, Matlin, 2000). These effects reflect the fact that traits defining how occupationally successful persons ought to be (e.g., masculine) are more salient and important than traits defining how they ought not to be (e.g., feminine).

The key role of high-status group prototypicality in explaining the FA-effect was further accented by the results of Experiment 3, where we directly manipulated the prototypicality of the targets for high or low status groups. Experimentally manipulating the target's masculinity through individuating information (i.e., sex-typed hobbies) enhanced the FA-effect for masculine men (men with typically masculine hobbies), but attenuated the FA-effect for men whose masculinity was undermined by introducing them as gender atypical (i.e., typically feminine hobbies). These results suggest that high status people will not profit from failure if this failure cannot be ascribed to their ingroup prototypicality. In this case, other, more individual, attributions for the failure - such as general incompetence – would be a likely consequence.

These results expand our knowledge about how success and failure in domains related to different social status groups can affect person perception. Although there has already been some evidence that domains in which low-status groups excel are normally devalued and regarded as providing little utility for gaining status relevant rewards (e.g., Schmader et al., 2001), our argument goes further by positing that

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failing or succeeding in those domains nevertheless provides useful information about how typical or untypical people are perceived to be for the group they belong to. These activated stereotypical expectations associated with the high-status group guide subsequent evaluations (e.g., Fiske, Lin, & Neuberg, 1999), especially if little individuating information is available to make a more personalized judgment (e.g., Fiske et al., 1999; Macrae & Bodenhausen, 2000).

Low-status targets and predicted occupational success

Our studies suggest that in order for people to make favorable predictions about a target's occupational future low status targets must individually succeed. Given that high-status domains are more highly valued than low status domains in society (e.g., Ridgeway, 1991; Schmader et al., 2001), low-status targets are better off if they succeed in high-status domains rather than low-status domains. However, in line with predictions, our experiments showed that low-status targets did not profit from individual failure as easily as high-status targets. For them, neither failure in high-status domains nor failure in low-status domains evoked positive prospects for their future career.

While in the former case they clearly fail to possess characteristics that are thought to be necessary for higher occupational positions (e.g., masculine traits; see Heilman et al., 1989), in the latter case they fail to possess characteristics that are ascribed to them depending on their group membership (e.g., feminine traits; see e.g., Eagly, 1987). And the mere deviation from the ingroup prototype in the latter case does not render the low-status target typical for the high-status group (e.g. no higher masculinity ratings). As a consequence, they do not have positive future career prospects ascribed to them.

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However, the results of Experiment 3 also reveal that if information is available indicating that a low status target possesses characteristics of the typical member of a high status group, failure in a low-status domain can lead to positive expectations equivalent to those of a high-status target. The FA-effect occurred for men *and* women when both targets were presented as highly masculine (typically masculine hobbies) - only unequivocally masculine women have favorable future career prospects attributed to them. The fact that females only profit from failure if this is an indicator of masculinity *and* if observers are led to expect right from the start that they are masculine is consistent with research showing that more information is needed to make stereotype inconsistent than consistent judgments (e.g., Fiske et al., 1999; Macrae & Bodenhausen, 2000).

This finding is also consistent with research by Rudman and Heilman and colleagues on backlash effects (e.g., Rudman & Glick, 1999, 2001; Rudman & Fairchild, 2004; Heilman et al., 2004). Women who act in an unequivocally competent and agentic manner are considered competent and agentic, but may suffer from social or economic reprisals because they violate prescriptive gender stereotypes. It is possible that a comparable backlash would have occurred for the masculine female targets in our experiments if measures of social and economic reprisal had been used (e.g., sympathy or social attractiveness ratings, discrimination in hiring decisions). Future research on the FA-effect might incorporate such measures.

The FA-effect as a strategic tool for self-presentation

Our final study, Experiment 5, investigated the FA-effect in an applied context (simulated hiring decisions), using a different operationalization of individual success and relative group performance, and a different dependent measure (hireability for a management position). Results show that male applicants were more likely to be hired

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when they advertised themselves as "handicapped" rather than skilled in a typically feminine ability, whereas the reverse was true for an ability unrelated to feminine skills. Again, perceived masculinity was found to mediate these effects. This suggest that men could use the FA-effect as a strategy to present themselves as possessing typically masculine attributes, attributes that are supposedly needed for high positions in the workplace (e.g., Stahlberg & Sczesny, 2001), thereby advancing their chances of getting hired.

However, based on our findings, and those showing backlash towards highly competent women (e.g., Rudman & Glick, 1999, 2001), we can speculate that the FA-effect (in terms of demonstrating masculine prototypicality through failure in a feminine domain) does not offer a viable strategy for women to combat gender-linked hiring discrimination. Even if women might successfully attract masculinity attributions (which may not be as easy for women as men, see Experiment 3), unequivocally agentic women are still likely to be perceived as less likeable and therefore less hireable compared to equally qualified men (Rudman, 1998). However, the chances to profit from the FA-effect (now in terms of demonstrating feminine prototypicality through failure in a masculine domain) might be significantly enhanced if women apply for a female-typed position.

It is reasonable to assume, for example, that if interpersonal skills are an explicit criterion for a job (e.g., marriage guidance counsellor), women who are perceived as highly communal but not agentic should be regarded as most suitable for the job (e.g., Glick et al., 1988; Rudman & Glick, 1999). However, some words of caution are warranted. The rationale of the present studies is that as long as a person thinks about a target's occupational success in a more global way, without taking into account specific job requirements, success should be associated with possessing high-

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status or masculine traits. This assumption is based on the fact that higher positions, such as top management and executive level jobs, are predominantly characterized in masculine terms (e.g., Heilman, 2001; Heilman et al., 1989; Schein, 2001).

Conclusion and implications

The research reported here shows, across multiple paradigms, that people are seen as having favorable occupational prospects as a result of performing poorly in a low-status domain to the extent that they are explicitly viewed as possessing typical high-status traits. High-status category members profit from such a failure much more easily than low-status category members.

These findings resonate with research on the consequences of violating prescriptive stereotypes (e.g., Eagly, 1987; Rudman, 1998; Rudman & Fairchild, 2004), with the think-manager-think-male stereotype (Heilman et al., 1989; Schein, 2001; Stahlberg & Sczesny, 2001), and with the social identity analysis (e.g., Hogg, 2005, 2006) of prototypicality dynamics within and between groups.

Backlash and failure-as-an-asset (FA) effects may have significant societal functions as mechanisms that preserve cultural stereotypes and the existing social order (see Rudman and Fairchild, 2004, for backlash effects). Jost and colleagues (e.g., Jost & Banaji, 1994; Jost, Banji, & Nosek, 2004) have argued that system justification represents a profound motivation in society. People are keen to protect and justify the social and political status-quo even at the expense of personal and group interests (Jost et al., 2004). The operation of this motive might play a role in the tendency to show negative evaluations if members of a low status group excel on certain achievement dimensions (social or economic backlash), or to show positive evaluations even if a member of high status groups fails on a certain achievement task (failure-as-an-asset).

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[1] In a pretest, eighty-six participants evaluated whether logical thinking is a typical female or male attribute (1 = typical female to 9 = typical male). Logical thinking was judged to be neither a typical male nor a typical female attribute (M = 5.07; t(86) < 1.

[2] In addition, a supplementary analysis included sex of participant as a covariate. In line with prior research showing that both female and male evaluators are prone to make stereotypical judgments and to discriminate against violations of gender stereotypes (e.g., Rudman, 1998), sex of participant did not affect the results.

[3] In case of predicted contrast effects, the effect size r according to Mullen (1989) was calculated. Following Cohen (1977), an r of .50 is considered a large effect, an r of .30 a moderate effect, and r of .10 a small effect.

[4] The interaction of relative gender performance with sex of target ($F(1, 104) = 13.47$ $p < .001$), the interaction of individual performance x relative gender performance interaction ($F(1, 104) = 13.47$, $p < .001$), and the interaction of individual performance with sex of target ($F(1, 104) = 4.31$, $p < .05$) were also significant. All these interaction were qualified by the described 3-way interaction. No other effects were significant.

[5] As in Experiment 1, including sex of participant as a covariate in a supplementary analysis did not affect the results.

[6] The results also showed a significant main effect of individual performance ($F(1, 104) = 4.65$, $p < .05$, $r = .21$), and a significant main effect for relative gender performance ($F(1, 104) = 8.06$, $p < .01$, $r = .27$). Furthermore, the interaction of relative gender performance with sex of target was significant ($F(1, 104) = 8.24$, $p <$

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.05), as was the interaction of individual performance x relative gender performance ($F(1, 104) = 19.28$, $p < .001$). No other effects were significant, with *p*s > .12.

[7] The analysis also yielded a significant main effect for sex of target ($F(1, 104) = 14.89$, $p < .001$, $r = .35$), and a main effect for individual performance ($F(1, 104) = 4.15$, $p < .05$, $r = .19$). The interactions of relative gender performance x individual performance interaction ($F(1, 104) = 10.62$, $p < .005$) and the interaction of relative gender performance x sex of target ($F(1, 104) = 4.56$, $p < .05$) also reached significance. No other effect was significant, with *p*s > .08.

[8] These specific success items were included to supplement the global items to substantiate the measure of predicted occupational success.

[9] We also conducted a separate analysis with these four occupational fields combined. However, because the results for this measure mirrored those of the global occupational success measure all items were conjoined in an overall scale.

[10] Sex of participant did not affect the results when included as covariate in supplementary analyses.

[11] Results also showed a significant main effect of individual performance ($F(1, 192) = 4.56$, $p < .05$, $r = .14$), relative gender performance ($F(1, 192) = 4.74$, $p < .05$, $r = .16$), sex of target ($F(1, 192) = 6.00$, $p < .05$, $r = .17$), and target's gender-typicality ($F(2, 192) = 25.05$, $p < .001$). The individual performance x relative gender performance interaction ($F(1, 192) = 64.37$, $p < .001$), the interaction of individual performance x gender typicality of target ($F(1, 192) = 3.21$, $p < .001$), and the three-way interaction of individual performance x relative gender performance x gender typicality of target ($F(2, 192) = 4.29$, $p < .05$) were also significant.

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[12] Moreover the following effects were also significant: main effect of sex of target ($F(1, 192) = 13.63$, $p < .05$), main effect for relative gender performance ($F(1, 192) = 10.05$, $p < .05$), main effect of target's gender-typicality ($F(2, 192) = 74.28$, $p < .001$), interaction of individual performance x relative gender performance ($F(1, 192) = 72.33$, $p < .001$), three-way interaction of individual performance x relative gender performance x gender typicality of target ($F(2, 192) = 9.51$, $p < .05$), and individual performance x relative gender performance x sex of target ($F(1, 192) = 7.01$, $p < .05$).

[13] A supplementary analysis found no mediational effect for perceived femininity on predicted occupational success.

[14] As target's sex as well as participants' major did not affect the results, the data were pooled over these variables in subsequent analyses.

[15] Two significant main-effects of relative grou*p* performance ($F(1, 248) = 14.81$, $p < .001$, $r = .25$) and status of target ($F(1, 248) = 4.34$, $p < .05$, $r = .14$), and a significant interaction of relative status grou*p* performance and individual performance also reached significance ($F(1, 248) = 26.72$, $p < .001$). No other effects were significant, with Fs < 1.

[16] The analysis also yielded two main effects of status of target person ($F(1, 248) = 26.56$, $p < .001$, $r = .32$) and relative grou*p* performance ($F(1, 248) = 5.32$, $p < .05$, $r = .15$), and an interaction of relative grou*p* performance by individual performance ($F(1, 248) = 37.65$, $p < .001$).

[17] A supplementary analysis found no mediational effect for perceived typicality for the low status grou*p* on predicted occupational success.

[18] In a pretest, the sex-typedness of the abilities used in Experiment 4 was judged by 21 female and 13 male subjects. Compared with the scale-midpoint, being a good

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dancer was seen as a feminine ability (M = 3.18), $t(33) = -4.81$, $p < .001$, while participants were agnostic in their judgment when it came to being very knowledgeable about movies (M = 4.18; $p > .20$). However, being a good dancer and being an expert on movies did not differ significantly in their relevance for occupational success (2.82 vs. 2.49; $p > .20$).

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Table 1

Means for expected occupational success of the stimulus-person as a function of relative gender performance, individual performance, and sex of target in Experiment 1(N = 112)

	Sex of Target			
	Female Target		Male Target	
Relative Gender Performance	Individually good	Individually poor	individually good	individually poor
Men are better	4.84 (1.50)	3.86 (0.81)	4.31 (0.69)	3.27 (0.96)
Women are better	3.29 (1.47)	2.97 (0.84)	3.43 (1.63)	5.07 (1.37)

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Note. Occupational success ratings were measured on 7-point Likert-type scales, with a higher mean expressing a stronger expected occupational success.

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Table 2

Means for expected occupational success, attributed masculinity and attributed femininity of the stimulus-person as a function of relative gender performance, individual performance, and sex of stimulus-person in Experiment 2 (N = 112)

		Sex of Target			
		Female Target		Male Target	
Type of Attribution	Relative Gender Performance	Individually good	Individually poor	individually good	individually poor
Occupational Success					
	Men are better	5.27 (1.45)	4.09 (1.14)	5.29 (1.15)	3.46 (0.89)
	Women are better	3.43 (1.13)	3.30 (0.54)	3.80 (1.58)	4.96 (1.52)
Masculinity					
	Men are better	4.48 (0.66)	3.68 (0.99)	4.89 (0.88)	3.87 (0.82)
	Women are better	3.85 (1.00)	3.34 (0.51)	4.16 (0.55)	5.09 (1.46)

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Femininity				
Men are better	3.60 (0.39)	4.43 (0.49)	3.74 (0.37)	4.02 (0.51)
Women are better	3.75 (0.46)	4.11 (0.42)	3.60 (0.67)	3.98 (0.45)

Note. Attributed masculinity and occupational success ratings were measured on 7-point Likert-type scales, with a higher mean expressing more masculinity and stronger expected occupational success.

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Table 3

Means for expected occupational success and attributed masculinity of the stimulus-person as a function of relative gender performance, individual performance, sex of target, and gender typicality of target in Experiment 3 (N = 216)

	Gender Typicality of Target											
	Typical female				Typical male				Control Group			
	Sex of Target				Sex of Target				Sex of Target			
	Female		Male		Female		Male		Female		Male	
Type of Relative Gender Attribution	Individually		Individually		Individually		Individually		Individually		Individually	
Performance	good	poor	good	poor	good	poor	good	poor	good	poor	good	poor
Occupational Success												
Men are better	5.55	3.22	5.53	3.78	6.69	5.29	7.85	5.15	5.83	4.47	6.54	4.92

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	(1.03)	(1.41)	(1.37)	(1.26)	(1.08)	(1.38)	(0.92)	(1.36)	(1.38)	(1.32)	(1.28)	(1.18)
Women are better	3.59	4.31	4.53	4.05	3.92	6.29	4.62	7.07	5.61	4.97	4.52	6.57
	(1.97)	(1.12)	(1.88)	(1.04)	(1.50)	(1.20)	(1.53)	(1.25)	(1.33)	(1.07)	(1.64)	(1.28)
Masculinity												
Men are better	3.69	1.98	3.73	2.93	6.71	4.76	8.56	4.96	3.47	3.40	5.29	3.87
	(1.28)	(1.23)	(0.96)	(0.97)	(1.79)	(1.56)	(0.46)	(1.35)	(1.29)	(1.55)	(1.54)	(1.76)
Women are better	2.16	3.11	2.20	2.78	3.58	5.80	3.73	7.20	3.49	3.31	2.87	5.82
	(1.14)	(1.35)	(0.92)	(1.12)	(1.99)	(1.64)	(1.77)	(1.40)	(1.32)	(1.58)	(1.25)	(1.61)

Note. Occupational success ratings were measured on 9-point Likert-type scales, with a higher mean expressing a stronger expected occupational success.

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Table 4

Means for and expected occupational success, attributed typicality for BA-students and attributed typicality for TP-students of the stimulus-person as a function of relative group performance, individual performance, and status of target in Experiment 4 (*N* = 256)

		Status of Target			
		Low-Status Target (TP)		High-Status Target (BA)	
Type Of Attribution	Relative Group Performance	Individually good	Individually poor	individually good	individually poor
Occupational Success					
	BAs are better	5.37 (1.73)	4.71 (1.45)	6.08 (1.39)	4.72 (1.29)
	TPs are better	4.20 (1.43)	4.52 (1.23)	4.10 (1.31)	5.36 (1.30)
Typicality for BA					
	BAs are better	5.57 (2.09)	4.67 (1.93)	7.52 (1.74)	4.94 (1.82)

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	TPs are better	4.56 (1.91)	4.40 (1.59)	4.57 (1.92)	7.01 (1.98)
Typicality for TP					
	BAs are better	4.59 (1.47)	4.39 (1.60)	3.98 (1.23)	4.55 (1.12)
	TPs are better	4.99 (1.09)	4.66 (1.37)	4.57 (0.91)	4.96 (1.80)

Note. Attributed typicality for BA and TP and occupational success ratings were measured on 9-point Likert-type scales, with a higher mean expressing more typicality and stronger expected occupational success.

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Table 5

Hiring Decision, Masculinity- and Femininity Ratings as a Function of Kind of Statement and Kind of Ability in Experiment 5 (*N* = 46)

Type of Measure	Sex-typedness of Ability	Kind of Statement: Weakness	Kind of Statement: Strength
Hiring Decision			
	Feminine	0.70	-0.28
	Not sex-linked	-0.54	0.46
Masculinity			
	Feminine	4.37	3.38
	Not sex-linked	3.53	4.48
Femininity			
	Feminine	3.03	4.68
	Not sex-linked	3.66	3.33

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Note. More positive scores represent that the applicant would more likely be hired and is seen as more masculine and feminine (all n = 23 per cell)

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