The Backlash of Token Mobility: The Impact of Past Group Experiences on Individual Ambition and Effort

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Two studies investigated the impact of past ingroup experiences on individual aspirations and effort. Participants were told that in the past, members of their group had either been offered no opportunities (closed), few opportunities (token), or equal opportunities (open) to achieve a desired outcome. The results show that past group experiences determine responses to current opportunities and affect the perceived feasibility of individual success as well as individual performance. Exposure to a token system has different effects, depending on whether the group is historically advantaged or disadvantaged. Whereas those with a collective history of success see token mobility as a challenge and show superior performance, the same situation constitutes a threat to members of a historically disadvantaged group, who fail to take advantage of the opportunities offered to them and perform suboptimally.

Keywords: individual mobility; token system; meritocracy; disadvantage; discrimination; aspirations; social structure

In many societies, the realization that discrimination against particular groups is neither morally acceptable nor legally sanctioned has elicited attempts to offer equal opportunities to members of minority groups. This is done in the belief that minority group members will perceive and make use of novel opportunities and thereby improve their representation at various levels in society. Without contesting the necessity of promoting social equality in this way, in this article, we raise the possibility that the way people respond to the achievement opportunities available to them is determined by the historic context in which these opportunities have developed. We propose that efforts to engage in individual advancement opportunities emerge against a backdrop of knowledge about previous experiences of “people like us,” encompassing past successes or failures of other ingroup members as well as perceptions of the opportunities that have been afforded to ingroup members in the past.

The main issue we address in this research is how previous experiences of others who belong to the same group can affect the subjective likelihood that desirable goals may be achieved by the self (e.g., Vroom, 1964) and, hence, either depress or increase individual ambition and performance. According to social identity theory, beliefs about the feasibility of change are central determinants of the extent to which members of disadvantaged groups pursue achievement opportunities (Tajfel, 1981; Tajfel & Turner, 1979). These beliefs pertain to specific characteristics of the social structure, such as the degree of group boundary permeability, and the stability and legitimacy of group status structures (see also Blanz, Mummendey, Mielke, & Klink, 1998; Ellemers, 1993; Ellemers, Wilke, & Van Knippenberg, 1993). Perceived group boundary permeability is considered the decisive factor in determining whether individual position improvement is feasible (see also More-
land & Levine, 1952; Taylor & McKirnan, 1984). Hence, according to this view, the subjective belief that the system allows for individual advancement regardless of gender, race, or some other group-based identity is seen as a crucial precondition for the emergence of the ambition to advance as well as the investment of effort in the realization of such individual advancement (see also Ellemers, Van Kuijpenberg, de Vries, & Wilke, 1988; Ellemers, Van Kuijpenberg, & Wilke, 1990; Wright, Taylor, & Moghaddam, 1990). Thus, beliefs about individual mobility opportunities should determine the likelihood that people will recognize and engage in actual achievement opportunities they encounter.

Although analyses of the characteristics of the social structure most often focus on the comparison between closed (impermeable) and open (permeable) structures, Wright and colleagues have pointed out that in modern societies, opportunities are most often neither totally closed nor totally open to disadvantaged group members (see also Kanter, 1977; Moreland, 1965; Pettigrew & Martin, 1987). In these “restricted” or “token” contexts, opportunities are quite systematically denied to members of disadvantaged groups. Accordingly, individuals faced with token systems often judge them as unfair, just as do individuals faced with closed systems (e.g., Wright et al., 1990; Wright & Taylor, 1998, 1999). At the same time, the fact that some (token) individuals are allowed entry in the advantaged group can promote an “illusion of meritocracy,” causing people to pursue individual advancement, even when they know the possibility of access to an advantaged position is as low as 2% (Wright, 1997; Wright et al., 1990; Wright & Taylor, 1998). This suggests that the existence of a few successful tokens can be taken as a symbol of merit-based opportunity, even when the actual scale at which individual merit secures advancement remains very limited (see also Taylor & McKirnan, 1984). Token contexts are thus ambiguous in that they combine characteristics of closed contexts, in the sense that group membership restricts the likelihood of individual success, and of open contexts, because those few disadvantaged group members who succeed do so on the basis of their individual achievements.

Effects of perceived group boundary (im)permeability have so far been examined by creating situations where research participants are explicitly informed of their personal chances of obtaining entry into a more attractive group. Typically, participants are divided into experimental groups, after which they are either told that only a fixed percentage of group members will be allowed to enter a more advantaged group (e.g., Wright et al., 1990) or they are informed that their attempts to enter the advantaged group have failed (e.g., Taylor & McKirnan, 1984). Thus, previous research has examined the consequences of structural opportunities when knowing whether one will be afforded access to a more advantaged group. In this article, we go back one step in this process as we aim to examine how differential beliefs about the feasibility of individual success can emerge. In real life, specific information about the likelihood of personal success is hardly ever available to individuals, so that people tend to infer their opportunities for advancement from what they can see has happened to others before them. We propose that the awareness that opportunities have been open to other ingroup members in the past conveys that the social structure is permeable, and hence is likely to foster the conviction that individual success is feasible for oneself as well. By contrast, when other ingroup members have found opportunities to be closed to them in the past, the social structure is likely to be seen as impermeable, and as a consequence, individual success is not seen as feasible.

In this context, the situation of token mobility is particularly interesting. Given that it combines characteristics of both open and closed opportunity structures, the observation of token mobility among ingroup members in the past provides ambiguous information about one’s own chances for success. On one hand, it seems to suggest that displays of individual merit will help achieve desired outcomes, whereas on the other hand, it conveys that members of this particular group can anticipate that they will be faced with discrimination. Whereas research in this area so far has emphasized the possibly beneficial effects of token situations for the willingness to pursue individual mobility (e.g., Wright et al., 1990), we propose that token systems also may be harmful if people instead focus on the limitations that this system also implies.

We suggest that whether people under these circumstances will focus on the opportunities for individual mobility or on the fact that access to desired outcomes is restricted for members of their group is likely to depend on additional factors, such as beliefs regarding the typical competence of members of their group. In the absence of individual experience with the situation at hand, people may infer the likelihood that they will be able to display the performance necessary to obtain desired outcomes by applying to themselves what they know about the typical competence of other members of their group (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). The belief that members of one’s group generally are competent will improve the perceived likelihood of individual achievement and enhance performance, whereas the belief that other ingroup members have failed to show the required ability should depress individual ambition and performance. In addition, as research on stereotype threat suggests, beliefs about typical group performance may strongly affect individual self-confidence and performance, even when individuals do not personally endorse these beliefs (Steele &
Aronson, 1995). Although such effects of group-based expectations may emerge across the board, we predict that they are particularly relevant in token situations. In fact, information affecting an individual’s expected competence is likely to have little effect on individual performance when it is known that the social structure is either totally closed or open to members of one’s group. However, because token systems are so ambiguous, people are likely to feel the need to attend to other cues (e.g., group-based performance expectations) to determine their own ambitions and efforts. To the extent that other members of one’s group have shown competence in this domain, people in a token situation will focus on the possibility for individual advancement and adapt their own behavior accordingly. However, the awareness of limited opportunities is likely to discourage those who know that members of their group typically have not displayed the required performance, and this will prevent them from taking advantage of the advancement opportunities they have.

The Present Research

The present research aims to assess how individuals experience the opportunities awarded to their group in the past. We examine how these opportunities are perceived as well as their emotional and behavioral consequences. We are particularly interested in examining how the knowledge that other ingroup members have experienced token mobility (as contrasted with open and closed opportunity structures) affects perceived opportunities for individual advancement, as well as the resulting efforts directed at realizing those opportunities. Furthermore, we examine factors that may influence how token mobility is experienced. In Study 1, we examine whether responses to token mobility are moderated by the extent to which the performance required for success seems typical for members of one’s group by independently manipulating past ingroup performance (weak vs. strong) and past ingroup opportunities (closed vs. tokenism vs. open context). Study 2 extends this analysis by examining how membership in a historically advantaged or disadvantaged (gender) group determines reactions to opportunities other group members have received in the past.

STUDY 1

Method

DESIGN AND PARTICIPANTS

This study followed a 2 (past ingroup performance: weak vs. strong) × 3 (past ingroup opportunity: closed vs. tokenism vs. open) between-participants factorial design. A total of 141 psychology students of the University of Leiden voluntarily took part in this study (30 men, 111 women, evenly distributed across conditions). The mean age of the participants was 19 years. Each experimental session lasted approximately 45 min, after which participants were fully debriefed and received the equivalent of U.S.$6 for their participation.

PROCEDURE

Cover story. Participants sat in cubicles in front of a computer and followed the instructions that appeared on the computer screen. The study was introduced as part of an initiative of the University of Leiden to increase the contact between students and organizations through the implementation of practical training days. Participants were offered the opportunity to apply to take part in these training days and read that participation would allow them to learn a great deal about working in organizations and help them plan their future career. Participants read that the researchers were in charge of selecting which students would participate in these training days. This selection was made by means of a (bogus) Analytic and Associative Capabilities Test (AACT) that they would be asked to perform. This test allegedly measured cognitive abilities that were essential to functioning at an optimal level in organizations. It was stressed that performance at this test did not depend on study major or prior level of knowledge.

Manipulations. To manipulate past ingroup performance, participants saw a graph that showed the average scores of past candidates from different study majors (law, arts, psychology, medicine, and computer science). In the weak ingroup performance condition, the graph showed that other ingroup members (psychology students) had performed worse (30 points) than students from the remaining majors (who allegedly had scored between 70 and 85 points, out of a maximum of 100 points). In the strong ingroup performance condition, the graph showed that other ingroup members had performed better (85 points) than students from the remaining study majors (between 30 and 50 points). This manipulation was reinforced by asking participants to indicate the scores of the students from different study majors on a form placed next to the computer. To check whether this objective information was noted, participants evaluated on a 7-point scale the previous performance of psychology students relative to students of other majors.

Next, participants saw a list of names and study majors of applicants of the previous year (12 students of each study major, with equal numbers of men and women across study majors). Subsequently, to manipulate past ingroup opportunity, participants saw the list of students that had allegedly been selected for these training days the previous year. In the closed condition, participants saw that no psychology students had been selected but
that 5 students from each of the remaining majors had been selected. In the tokenism condition, 2 psychology students were selected, whereas 5 students from each of the remaining study majors were selected. In the open condition, 5 people were selected from each major, including psychology. This manipulation was reinforced by asking participants to indicate on the form placed next to the computer the number of psychology students that was selected the previous year in comparison to students of other majors.

MEASURES

Unless otherwise specified, participants were asked to answer each question by indicating on 7-point Likert-type scales (from 1 = not at all to 7 = very much) to what extent a statement was applicable to them. Measures were taken at two different stages. Before the experimental manipulations, participants were asked to what extent they would like to participate in these training days (motivation to participate), how likely they thought that they would be selected (a priori feasibility of individual success), and the degree to which they identified as psychology students (ingroup identification, adapted from Luhtanen & Crocker, 1992, to reflect identification with psychology students, \( \alpha = .52 \)).

Dependent measures were taken after the manipulations. Participants were asked their evaluation of the selection process, which determined past ingroup experiences (their agreement/satisfaction with the selection process and the extent to which they found the process fair; \( \alpha = .83 \)), the extent to which they experienced negative emotions (discouraged and sad, \( r = .40 \), \( p < .01 \)), and their perceived feasibility of success (i.e., How likely do you think it is that you will be selected for these practices?).

Performance. Although the AACT did not measure cognitive abilities, and in that sense it was a bogus test, it constituted a measure of performance. This test consisted of 20 anagrams that had to be solved as correctly and as quickly as possible. For each anagram, participants had to indicate which of four options correctly represented the unscrambled anagram. Participants performed two training trials before starting the actual test. This task yielded two measures of performance: the number of anagrams correctly solved and the speed with which correct anagrams were solved (in ms; see Ouwerkerk, de Gilder, & de Vries, 2000).

Results

Unless otherwise specified, all analyses employed a 2 (past ingroup performance: weak vs. strong) \( \times \) 3 (past ingroup opportunity: closed vs. tokenism vs. open) between-participants ANOVA.

PREMANIPULATION MEASURES

Three separate 2 \( \times \) 3 ANOVAs revealed that participants did not differ across conditions in the measures taken prior to the manipulations. At the outset of the study, all participants were highly motivated to take part in the training days (\( M = 5.92, SD = 1.01 \), significantly above the scale midpoint), \( t(140) = 10.32, p < .001 \); expected to be successful in the selection process (\( M = 4.52, SD = 1.01 \), significantly above the scale midpoint), \( t(140) = 6.08, p < .001 \); and were moderately identified with their group (\( M = 3.26, SD = 1.01 \), significantly below the scale midpoint), \( t(140) = 8.68, p < .001 \).

MANIPULATION CHECK

A 2 \( \times \) 3 ANOVA on the manipulation check of past ingroup performance revealed only a significant main effect of past ingroup performance, \( F(1, 135) = 856.79, p < .001 \). Participants with weak past ingroup performance (\( M = 1.90, SD = 1.18 \)) stated that the ingroup had performed significantly worse in the past than participants with strong past ingroup performance (\( M = 6.49, SD = .63 \)).

DEPENDENT MEASURES

Evaluation of the selection process. A 2 \( \times \) 3 ANOVA only revealed a significant main effect of past ingroup opportunity, \( F(2, 135) = 4.60, p < .05, \eta^2 = .06 \). The effect of past ingroup performance was not reliable, \( F(1, 135) = .17, ns, \eta^2 = .00 \). Participants in the open condition evaluated the selection process significantly more positively (\( M = 4.24, SD = 1.20 \)) than did participants in the tokenism condition (\( M = 3.71, SD = 1.12 \)), \( t(92) = 2.22, p < .05 \), and participants in the closed condition (\( M = 3.53, SD = 1.24 \)), \( t(93) = 2.84, p < .01 \). There was no significant difference in evaluation between the tokenism and closed conditions, consistent with previous research indicating that token mobility can be considered as equally unattractive as a situation that is completely closed.

Feasibility of individual success. A 2 \( \times \) 3 ANOVA only revealed a significant main effect of past ingroup opportunity, \( F(2, 135) = 11.65, p < .001, \eta^2 = .15 \). There was no reliable effect of past ingroup performance, \( F(1, 135) = 1.18, ns, \eta^2 = .01 \). Participants in the tokenism condition thought their individual success was less likely (\( M = 2.94, SD = 1.48 \)) than did participants in the open condition (\( M = 4.10, SD = 1.06 \)), \( t(92) = 4.42, p < .01 \), illustrating how the awareness that only a few other ingroup members have been successful in the past diminishes one's own perceived opportunities for success. The expectancy of success of participants in the closed condition (\( M = 3.17, SD = 1.20 \)) did not significantly differ from the remaining two conditions.

Negative emotions. A 2 \( \times \) 3 ANOVA only revealed a significant main effect of past ingroup opportunity, \( F(2,
negative emotions. Participants in the tokenism condition expressed more negative emotions ($M = 2.38$, $SD = 1.29$) than did participants in the two remaining conditions (closed: $M = 1.95$, $SD = .88$), $t(91) = 1.87$, $p = .06$ (open: $M = 1.69$, $SD = .86$), $t(92) = 3.03$, $p < .01$. This result illustrates that the observation of token mobility among other ingroup members can be emotionally harmful for the self.

Task performance. A $2 \times 3$ MANOVA on the two performance indicators only revealed a significant multivariate effect of past ingroup opportunity, $F(2, 135) = 5.32$, $p < .01$. At the univariate level, this effect was significant for the speed with which participants solved the correct anagrams, $F(2, 135) = 3.32$, $p < .05$, $\eta^2 = .05$. Participants in the closed condition worked faster ($M = 1851.75$) than did participants in the remaining conditions (tokenism: $M = 7103.02$, $SD = 2454.44$; open: $M = 8201.52$, $SD = 1383.22$), although only the difference between the closed and open conditions was statistically reliable, $t(93) = 2.30$, $p < .05$.

Although this effect did not reach conventional levels of significance for the amount of correctly solved anagrams, $F(2, 141) = 2.38$, $ns$, $\eta^2 = .03$, a similar trend was identified in the means pattern, again indicating that participants tended to show better performance as it was more clear that members of their group had systematically been refused opportunities in the past (closed: $M = 18.77$, $SD = 1.07$; tokenism: $M = 18.20$, $SD = 2.38$; open $M = 17.65$, $SD = 3.37$). No reliable effect of past ingroup performance was revealed, $F(1, 135) = .03$, $ns$, $\eta^2 = .00$.

Discussion

The results of this study demonstrate that the past experiences of other ingroup members determine how individuals respond to the achievement opportunities they encounter themselves.

In line with previous research, we found that the awareness that other ingroup members had only been provided with token opportunities resulted in an equally negative process evaluation as the knowledge that opportunities had been closed to other ingroup members in the past. However, although previous research (see Wright et al., 1990) suggests that token opportunities tend to focus people on the possibility for individual success, in our study, we found that participants considered their individual success as significantly less feasible under the knowledge that token opportunities had been offered to other ingroup members in the past, compared to a situation that had been open to other ingroup members. As a result, participants in the token condition believed that their individual success was as unlikely as in the closed condition.

Our findings also suggest that token systems may be even more harmful than closed systems. In fact, participants in the token context expressed more negative emotions than did participants in any of the other past opportunity conditions. The performance data complete this picture. Participants who knew that other members of their group had been systematically excluded from opportunities in the past (closed context) performed better than did participants in the other experimental conditions. This observation is consistent with prior research revealing that individuals tend to display performance boosts to counter negative expectations about their group, provided that the group stereotype is made explicit (Kray, Thomson, & Galinsky, 2001). Furthermore, we too found that such performance boosts are less likely to occur when group-based expectations are more ambiguous, as is the case in (token or open) situations that appear to be more merit based. This pattern of responses converges with prior research showing that people remain confident of their abilities when faced with clearly discriminatory cues, but that they lose self-confidence when discriminatory cues are more ambiguous (Major, Quinton, & Schmader, 2003; Ruggiero & Taylor, 1997). In our research, the awareness of token mobility for other ingroup members in the past led participants to believe that individual success was less feasible, so that they failed to display the increased performance that might help them take advantage of the opportunities offered to them. Of importance, in contrast to previous research suggesting that individuals should optimally take advantage of any advancement opportunities offered to them (e.g., Wright et al., 1990), we found that the observation of token mobility among other ingroup members failed to elicit a similar performance increase. In this way, our findings extend prior knowledge by showing that individual performance is affected by perceptions of past success of other ingroup members and that performance boosts are less likely to occur as the interpretation of past ingroup experiences is more ambiguous.

In sum, we found that the effect of past ingroup opportunities extends the emergence of negative reactions to what happened in the past (i.e., perceptions and emotions) because it is also projected into the future, shaping people’s beliefs about the feasibility of their success as well as their performance at current opportunities.

Although our data confirmed that we had successfully manipulated perceptions of the past task performance of other ingroup members, this knowledge about the typical performance of the ingroup at the task at hand did not affect further measures in this study. Instead, evaluations of past group experiences, emotional responses, and perceptions of one’s own opportunities
solely depended on the perceived opportunities that had been offered to other ingroup members in the past. This attests to the relevance of sociostructural belief systems in shaping individual ambitions and improvement attempts. Nevertheless, past ingroup performance may under other circumstances affect how the individual responds to current opportunities. In particular, it is possible that the participants in this study discounted the feedback provided about their group because it did not relate to a central part of the group’s stereotype. In fact, there is no clear association between study major (the group membership examined) and the cognitive abilities needed to function at high levels in organizations (i.e., the dimension in which the group allegedly underperformed). This lack of association may have facilitated the perception that the feedback received was true only for those tested in the particular past context and is not likely to be seen as having wider implications across contexts and to other members of the group. The effect of past group performance would have been more difficult to discount, and would therefore have been more consequential, if it had been connected to the group’s stereotype. This issue was addressed in the next study.

STUDY 2

Study 2 was designed to extend the findings of Study 1. In this second study, we investigated the effect of beliefs about past ingroup performance by focusing on groups associated with different stereotypes that have implications for performance at high levels in organizations. In particular, we focused on gender groups: Beliefs regarding past group performance varied as a function of the stereotypic expectations about the performance of men and women. Whereas men as a group tend to be positively stereotyped in the (job) performance domain, women tend to be negatively stereotyped in this area (see Deaux & LaFrance, 1998, for a review). As in Study 1, we expected that a similar context would be experienced differently depending on beliefs regarding past group performance. As a result, we expected men to be more inclined to focus on the opportunities offered by token systems, whereas women were expected to be more likely to focus on the limitations implied in these systems.

Besides the possible effect that these stereotypes may have on men’s and women’s self-confidence, they also provide a basis for the development of distinct belief systems regarding success at achievement opportunities. In particular, men and women are likely to differ in the extent to which they believe that individual opportunities are determined by individual merit or by discrimination. As a step further in the examination of this process, in Study 2 we examine the pattern of attributions made for the group’s past performance: In addition to more standard internal and external performance attributions (Weiner et al., 1972), we assessed attributions to discrimination (which can have both internal and external components, Schmitt & Branscombe, 2002) because this specific attribution is most relevant to the question under investigation. For members of negatively stereotyped groups (in this case, women), we assume that the possibility that group-based discrimination may have restricted other ingroup members in the past is more salient (see also Major & Crocker, 1993; Ruggiero & Taylor, 1997). Hence, in ambiguous contexts such as when the group was given token opportunities in the past, women are more likely than men to suspect that other members of their group may have failed to achieve desired outcomes due to gender discrimination and that similar circumstances are likely to affect them as well. By contrast, men have no history of disadvantage due to their group membership, and thus, they are more likely to maintain the belief that opportunities are based on individual merit. Hence, in a token context, men should be more inclined than women to attribute past successes or failures of other ingroup members to causes internal to those ingroup members (i.e., their ability or effort), which do not necessarily apply to themselves individually. As a result, compared to women, men should be less likely to perceive group-based discrimination when interpreting past events. As a consequence of these different attributions, women’s inclination to engage in attempts at individual achievement in the token conditions are likely to be undermined, whereas men are expected to aim to take advantage of the opportunities offered to them personally. That is, men are in a better position than women to perceive the individual opportunities implied in a token system as challenging rather than as threatening and are therefore likely to perform better than women when they perceive that token opportunities have been awarded to their group in the past.

The idea that similar structural opportunities are interpreted differently by women and men is also consistent with previous work (see Schmitt & Branscombe, 2002, for a review) proposing that differences in the pervasiveness of discrimination for women and men shape the meaning that they attribute to a single discriminatory event. For women, gender-based discrimination tends to constitute a pervasive obstacle they encounter in a variety of social contexts, and that has enduring consequences. By contrast, gender discrimination is a rare event for men, which tends to refer to less consequential life domains and, hence, is not so strongly associated with an ongoing frustration of individual aspirations. As a consequence, Schmitt and colleagues showed that women tend to experience a single event of discrimina-
tion as more threatening and undermining than do men. Therefore, in addition to being more likely to consider discrimination as a possible cause for lack of opportunities in the (ambiguous) token context, women are also more likely than men to be harmed by the discrimination that they do perceive.

In the second study, we have also opted for a different, more meaningful, and diagnostic performance measure, which is part of an actual IQ test. Finally, in the second study, we aim to assess the effects of our manipulations on the perceived relevance of the performance measure because this may be both a consequence of experienced threat in a given domain as well as one of the precursors of psychological disengagement and other social creativity responses to the previous failure of other ingroup members (see, e.g., Schmader & Major, 1999).

Method

DESIGN AND PARTICIPANTS

This study followed a 2 (participant’s gender: male vs. female) × 3 (past ingroup opportunity: closed vs. tokenism vs. open) between-participants factorial design. A total of 235 students (53 men, 182 women) at the University of Huelva took part voluntarily in this study (Mage = 24 years).

PROCEDURE

The procedure followed in this study was similar to that of Study 1 with the exceptions described below. This study consisted of a paper-and-pencil questionnaire, in a classroom, after a lecture. In this study, we compared responses of male and female participants but did not manipulate past ingroup performance in this specific domain. To manipulate past ingroup opportunity, participants saw a graph showing the percentage of male and female candidates that had been selected the previous year. In the closed condition, participants saw that no candidate of their own gender had been selected and that 50% of the candidates from the other gender group had been selected. In the tokenism condition, the graph showed that only 10% of the ingroup candidates had been selected, although 40% of the outgroup candidates had been selected. In the open condition, 25% of ingroup candidates and 25% of outgroup candidates were selected.

MEASURES

Unless otherwise specified, participants were asked to answer each question by indicating on 7-point Likert-type scales (from 1 = not at all to 7 = very much) to what extent a statement was applicable to them. The measures included before the manipulations were the same as in Study 1 (the measure of identification was adapted to reflect identification with the gender group, α = .67). After the manipulations, participants indicated their evaluation of the selection procedure (same items as in Study 1; α = .93) and the extent to which they experienced a series of negative emotions (discouraged, sad, disappointed, angry, irritated, indignant; α = .87). We assessed internal causal attributions (To what extent do you think that the students were selected last year due to [a] their efforts or [b] their abilities? r = .77, p < .001) and external attributions (To what extent do you think that the students were selected last year due to [a] the personnel who made the selection and [b] the policy of the organization? r = .42, p < .001). Although internal and external attributions were significantly and negatively correlated (r = .26, p < .001), principal components analysis supported the distinction between these two types of performance attributions. In addition, we more specifically assessed perceived discrimination in the interpretation of past events (To what extent do you think that the students were selected last year due to their gender?). Devaluation of task importance was measured with five items (e.g., other qualities besides those assessed are important to function well in a company, α = .56).

Performance. Performance was measured differently from Study 1. Although the test was still called Analytic and Associative Capacities Test (AAT), it consisted of part of an existing IQ test, formed by 10 items measuring logic abilities (the Spanish version that was used here can be retrieved from http://www.mensa.es/juegosmensa/iqtest.html). Participants have 15 min to work on this test, and performance is measured by counting the number of correct responses (from 0 to 10).

Results

Unless otherwise specified, all analyses employed a 2 (participant’s gender: male vs. female) × 3 (past ingroup opportunity: closed, tokenism, open) between-participants ANOVA.

PREMANIPULATION MEASURES

Before the manipulations, all participants were highly motivated to participate in the training days (M = 6.25, SD = 1.13, significantly above the midpoint of the scale), t(233) = 30.42, p < .001, and expected to be equally successful in the selection process (M = 4.45, SD = 1.37, significantly above the midpoint of the scale), t(234) = 5.92, p < .001. However, women identified more strongly with their gender group (M = 4.17, SD = 1.35, marginally significantly above the midpoint of the scale), t(179) = 1.74, p = .08, than did men (M = 3.31, SD = 1.34, significantly below the midpoint of the scale), t(52) = 3.74, p < .001, F(1, 233) = 16.71, p < .001.
DEPENDENT MEASURES

Evaluation of the selection process. A $2 \times 3$ ANOVA revealed a main effect of past ingroup opportunity, $F(2, 227) = 5.27, p < .01, \eta^2 = .04$. Participants in the open condition evaluated the selection process significantly more positively ($M = 4.05, SD = 1.43$) than did participants in the remaining conditions, closed: $t(151) = 3.28, p < .001$ ($M = 3.32, SD = 1.30$); tokenism: $t(151) = 2.24, p < .05$ ($M = 3.52, SD = 1.49$). A marginally significant main effect of gender, $F(1, 227) = 3.14, p = .08, \eta^2 = .01$, revealed that male participants evaluated the selection process slightly more positively ($M = 3.88, SD = 1.54$) than did female participants ($M = 3.54, SD = 1.40$), $F(1, 233) = 3.14, p = .08$.

Devaluation of task importance. A $2 \times 3$ ANOVA revealed a significant main effect of gender, $F(1, 225) = 10.96, p < .001, \eta^2 = .05$, indicating that female participants ($M = 5.94, SD = .57$) were more inclined to devalue the importance of the task than were male participants ($M = 5.54, SD = .72$).

Internal and external causal attributions. Internal and external causal attributions were examined with a 2 (participants’ gender) $\times$ 3 (past ingroup opportunity) $\times$ 2 (locus of attribution: internal vs. external) ANOVA with repeated measures on the last factor. This analysis revealed a significant main effect of locus of attribution, $F(2, 229) = 4.19, p < .05, \eta^2 = .02$, which was qualified by a significant interaction between locus of attribution and past ingroup opportunity, $F(2, 229) = 3.91, p < .05, \eta^2 = .03$, and by a significant interaction between locus of attribution and participant’s gender, $F(1, 229) = 11.59, p < .001, \eta^2 = .05$. The interaction between locus of attribution and past ingroup opportunity shows that in the open condition, participants attributed past opportunities received by the ingroup more internally ($M = 4.64, SD = 1.56$) than externally ($M = 3.76, SD = 1.39$), $t(75) = 3.23, p < .005$. However, the reverse pattern was shown in the token conditions: participants made more external ($M = 4.43, SD = 1.43$) than internal attributions ($M = 3.86, SD = 1.58$), $t(79) = 2.11, ns$, whereas there was no reliable preference for internal or external attributions in the closed context ($internal = M = 3.85, SD = 1.77; external = M = 4.05, SD = 1.55$), $t(80) = .69, ns$.

The interaction between locus of attribution and participants’ gender reveals that male participants attributed the opportunities received in the past more internally ($M = 4.67, SD = 1.69$) than externally ($M = 3.69, SD = 1.51$), $t(52) = 2.96, p < .001$, whereas women did not show a similar attributional preference ($internal = M = 3.94, SD = 1.64; external = M = 4.21, SD = 1.45$), $t(181) = 1.47, ns$. Viewed in another way, past ingroup performance was attributed more to internal factors by men than by women, $t(233) = 2.84, p < .005$, and to external factors by women than by men, $t(233) = 2.26, p < .05$. This attests to the different belief systems that men and women hold regarding the factors that determine the opportunities they receive: Whereas men appear to believe in a meritocratic system, women are less inclined to do so.

Given that our focus is mainly on the token condition, it seemed relevant to test whether the gender difference in attributions was significant in this condition in particular. This was the case: Men did not reliably differentiate between the two attributions in the token condition ($internal = M = 4.67, SD = 1.71$; external $M = 3.92, SD = 1.77$), $t(17) = 1.25, ns$, whereas women made more external ($M = 4.58, SD = 1.29$) than internal attributions ($M = 3.63, SD = 1.48$), $t(61) = 3.32, p < .005$, in this condition. In fact, this was the only condition in which the attributions made by male and female participants were significantly different: In the open condition, male and female participants alike made more internal than external attributions, men: $t(14) = 2.38, p < .05$ (internal $M = 4.93, SD = 1.58$; external $M = 3.33, SD = 1.52$), women: $t(58) = 2.36, p < .05$ (internal $M = 4.56, SD = 1.56$; external $M = 3.87, SD = 1.34$), whereas neither men nor women differentiate between internal and external attributions in the closed condition, men: $t(19) = 1.49, ns$ (internal $M = 4.48, SD = 1.80$; external $M = 3.75, SD = 1.27$), women: $t(60) = 1.48, ns$ (internal $M = 3.65, SD = 1.73$; external $M = 4.15, SD = 1.63$). That is, men and women disagreed about the factors underlying past opportunities especially when their group was awarded token opportunities in the past. However, the three-way interaction was not reliable, $F(2, 229) = .36, ns, \eta^2 = .003$.

Attribution to discrimination. A $2 \times 3$ ANOVA revealed a significant main effect of past ingroup opportunity, $F(2, 229) = 3.18, p < .05, \eta^2 = .03$, indicating that participants attributed past opportunities less to discrimination in the open condition ($M = 3.05, SD = 1.91$) than in the closed condition ($M = 3.78, SD = 2$), $t(153) = 2.3, p < .05$, and in the tokenism condition ($M = 4.20, SD = 1.93$), $t(152) = 3.71, p < .001$. A reliable main effect of participants’ gender also was revealed, showing that men ($M = 2.77, SD = 1.85$) generally made fewer attributions to discrimination than did women ($M = 3.96, SD = 1.96$), $F(1, 229) = 16.74, p < .001, \eta^2 = .07$. Because we were mainly interested in the tokenism conditions, we tested whether the gender difference in attributions to discrimination was significant in this condition. This indeed was the case: Whereas men do not appear to believe that discrimination was a cause of token opportunities in the past ($M = 2.78, SD = 1.89$), women indicate that discrimination was the factor underlying past token opportunities ($M = 4.61, SD = 1.74$), $t(78) = 3.86, p < .001$. In fact, the difference between attributions to discrimination made by men and women was only marginal in the closed condition.
in the tokenism condition than in the open condition, participants because they performed significantly better in the token context actually constituted an incentive for male participants, whereas men do not. This is most clearly the case in the token condition, where women tend to perceive group-based discrimination under token conditions.

Task performance. A 2 × 3 ANOVA revealed a marginally significant main effect of gender, $F(1, 227) = 12.78, p < .001, \eta^2 = .05$, and a marginally significant main effect of past ingroup opportunity, $F(2, 227) = 2.73, p = .07, \eta^2 = .02$, both qualified by a significant interaction between past ingroup opportunity and gender, $F(2, 227) = 3.18, p < .05, \eta^2 = .03$ (see Table 1). Inspection of relevant means and analysis of simple main effects indicates that the gender main effect is not reflected in each of the opportunity structures. That is, emotional responses of male and female participants are equal in the open condition, $F(1, 227) < 1$, ns, $\eta^2 = .006$. However, female participants expressed more negative emotions than male participants in the closed condition, $F(1, 227) = 7.97, p < .01, \eta^2 = .03$. The difference in emotional responses between female and male participants is even more pronounced in the token condition, $F(1, 227) = 18.42, p < .0001, \eta^2 = .15$. Thus, when advancement opportunities are restricted, negative emotions are likely to emerge among members of a group that has a history of social disadvantage (women). This is most clearly the case in the token condition, where women tend to perceive group-based discrimination, whereas men do not.

Mediation analyses. We argued that the differential likelihood of men and women to perceive discrimination when considering what happened to members of their group in the past should determine their emotional responses to past events as well as the way they behaviorally address current opportunities. To examine the validity of this argument, we tested whether the different emotional and behavioral reactions of men and women in the tokenism condition were mediated by the extent to which they attributed past ingroup opportunities to discrimination. First, we tested whether attributions to discrimination mediated the effect of gender on performance in the tokenism condition. Following Baron and Kenny (1986), the test of our prediction that gender affects attributions to discrimination, and this in turn determines individual performance, involves demonstrating that (a) gender reliably affects attributions to discrimination, (b) gender reliably affects performance, and (c) when attributions to discrimination are controlled for, the effect of gender on performance decreases reliably. Gender (coded as 0 = men, 1 = women) significantly predicted attributions to discrimination ($\beta = .40, p < .001$) as well as performance ($\beta = -.30, p < .01$). Attributions to discrimination also significantly predicted performance ($\beta = -.35, p < .001$). When attributions to discrimination were entered in the regression equation together with gender, they still significantly predicted performance ($\beta = -.27, p < .05$), whereas gender no longer significantly predicted performance in the token condition ($\beta = -19, p = .09$, significantly reduced $z = 2.56, p < .05$; Baron & Kenny, 1986). This indicates that attributions to discrimination mediate the effect of gender on performance in the token condition.

We also tested whether attributions to discrimination mediated the effect of gender on negative emotions in the token condition. In addition to demonstrating that (a) gender reliably affects attributions to discrimination (already shown above), this involves demonstrating that (b) gender reliably affects negative emotions and (c) when attributions to discrimination are controlled for, the effect of gender on negative emotions decreases reliably. Gender significantly predicted negative emotions ($\beta = .39, p < .001$), and attributions to discrimination also significantly predicted negative emotions ($\beta = .48, p < .001$). When attributions to discrimination were entered in the regression equation together with gender, they still significantly predicted negative emotions ($\beta = .39, p < .001$), and so did gender ($\beta = .25, p < .05$), but the effect of gender on negative emotions was significantly smaller than when entered alone ($z = 3.04, p < .05$; Baron & Kenny, 1986). Thus, attributions to discrimination partially mediated the effect of gender on negative emotions in the token condition.

Discussion

This study again demonstrates that the past opportunities provided to other ingroup members affect individ-
ual performance at current achievement opportunities while extending our initial findings by showing that this effect depends on the group to which the participant belongs.

In fact, men and women responded differently to the same information about the opportunities that had been offered to members of their group in the past. This gender difference was most remarkable when participants were informed that token opportunities had been awarded to their group in the past.

Consistent with prior research on the impact of group discrimination (see Schmitt & Branscombe, 2002) and with our expectations, women were more negatively affected than men by both the closed and the token conditions. Indeed, women attributed past token opportunities more to external factors than did men, whereas men attributed this same situation more to internal causes than did women. In addition, women attributed past ingroup opportunities to discrimination to a greater extent than did men, and this difference was especially noticeable in the token condition.

The different attributions made by men and women mediated their emotional and behavioral reactions in the token context. That is, women experienced more negative emotions than did men in the token condition (partially) because they attributed this ambiguous situation (past token opportunities) more to discrimination than did men. In addition, women’s attributions of token opportunities to discrimination led them to perform worse than men in the token context. That is, attributions of (lack of) past ingroup opportunities to discrimination not only mediated reactions oriented toward the past (emotions) but also affected the individual’s chances of success in the future (performance). In sum, these results are consistent with past research that shows that perceiving one’s group tends to be exposed to discrimination has a negative impact on well-being (Branscombe et al., 1999) and extends these by showing that attributions to group-based discrimination can impede people from profiting from the individual opportunities that they are offered.

By contrast, insofar as the internal attributions made by men refer to the past performance of other men, they can be considered self-protective. That is, contrary to

### TABLE 1: Interaction Between Past Ingroup Opportunities and Gender on Negative Emotions (Study 2)

<table>
<thead>
<tr>
<th>Past Ingroup Opportunity</th>
<th>Closed</th>
<th>Token</th>
<th>Open</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male participants</td>
<td>2.53a</td>
<td>1.63a</td>
<td>2.11a</td>
<td>2.10a</td>
</tr>
<tr>
<td>Female participants</td>
<td>3.18b</td>
<td>3.24b</td>
<td>2.31a</td>
<td>2.92a</td>
</tr>
<tr>
<td>Total</td>
<td>3.02a</td>
<td>2.88a</td>
<td>2.27a</td>
<td></td>
</tr>
</tbody>
</table>

Note: Means with different subscripts differ significantly at *p* < .05. Standard deviations are presented within parentheses.

### TABLE 2: Interaction Between Past Ingroup Opportunity and Gender on Task Performance (Study 2)

<table>
<thead>
<tr>
<th>Past Ingroup Opportunity</th>
<th>Closed</th>
<th>Token</th>
<th>Open</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male participants</td>
<td>3.55ab</td>
<td>4.33a</td>
<td>2.87b</td>
<td>3.62a</td>
</tr>
<tr>
<td>Female participants</td>
<td>3.05b</td>
<td>2.86b</td>
<td>3.37b</td>
<td>3.09b</td>
</tr>
<tr>
<td>Total</td>
<td>3.17a</td>
<td>3.19a</td>
<td>3.27a</td>
<td></td>
</tr>
</tbody>
</table>

Note: Means with different subscripts differ at *p* < .05. Standard deviations are presented within parentheses.
what happens when making attributions for one’s own failure (Major & Crocker, 1993), people may benefit from making internal attributions for the past performance of other ingroup members: If negative outcomes are caused by a lack of ability of those other ingroup members, this implies that lack of previous ingroup success is not necessarily predictive of one’s own likely achievements. As a result, in the token situation in particular, men maintained the conviction that differential outcomes in the past were due to causes connected to the individuals in question, which would accommodate the possibility of individual success at current opportunities and sustain meritocracy beliefs (see also Schmitt & Branscombe, 2002). By contrast, women believed that past group outcomes were determined by external causes and by gender discrimination, that is, more stable and uncontrollable causes that would be as applicable to them now as they were to other ingroup members in the past.

As a final indicator that the performance domain is more threatening for women than for men, we observed that women tended to devalue the importance of the task at hand in all conditions. The occurrence of such domain devaluation is relevant because it not only indicates the use of self-protective strategies (e.g., Tesser & Dell, 1983) but also constitutes a first step in the process of psychological disengagement (e.g., Major, Spencer, Schmader, Wolfe, & Crocker, 1998; Schmader & Major, 1999), which is associated with motivational withdrawal and underperformance (Van Laar & Derks, 2003). Although such domain devaluation may temporarily help members of negatively stereotyped groups cope with the threat implied in such situations, it is clear that those who turn to other domains to assert their identity may in the long run lose out in the domains that are more socially consequential.

**GENERAL DISCUSSION**

Building on previous work showing the beneficial effects of token mobility for individual attempts at position improvement (see Wright, 2001, for a review), with the present research we aimed to specify the circumstances under which such responses will tend to emerge and assess the possible negative impact of token mobility for members of disadvantaged groups. Our approach differs from that of prior research in this area because we assessed how ambition and individual performance are affected by group-level information about the experiences of similar others in the past. On the basis of an analysis of the ambiguity inherent in token situations, we argued that people can either benefit from the fact that in such contexts position improvement can be achieved on the basis of individual merit or suffer from the awareness that so few members of their group have been successful in the past. Our findings show that whether people focus on the (limited) opportunities offered by token contexts or on its inherent restrictions is a function of the historical context against which these opportunities are offered. That is, whereas prior research demonstrated the impact of social structures on the individual, we demonstrate that this impact is modified by the way social structures are interpreted by groups with different history.

Results from our two studies confirm that token situations tend to offer a challenge for members of a group with a history of social success (e.g., men) but constitute a threat for those who have been historically disadvantaged (e.g., women). Our findings show that men were inclined to see and take advantage of the opportunities for individual advancement inherent in a token situation. By contrast, past token mobility seems to have been experienced by women as a threat, as suggested by their negative emotional responses and pattern of attributions. Thus, the results of these studies converge to show that the same objective information (about token mobility in the past) may lead people to draw fundamentally different conclusions about their own opportunities for advancement, depending on the social history of the group they belong to. The pattern of attributions for past token opportunities suggests that whereas men, a traditionally advantaged group, can remain confident that individual advancement depends on merit, women see past group opportunities as determined by external factors, and by tainted by gender discrimination. These results are consistent with prior research showing that the extent to which people are inclined to see a particular context as reflecting discrimination depends on the extent to which discrimination constitutes a plausible explanation for the negative outcomes they more widely receive (see also Schmitt & Branscombe, 2002). Moreover, generally speaking, the idea that mobility among members of disadvantaged groups primarily depends on displays of individual merit fails to acknowledge group-based differences in social opportunities that still exist in many modern societies (see also Schmitt, Ellemers, & Branscombe, 2003). Indeed, the unconditional belief that we live in a meritocratic society tends to be advocated by those who have an interest in denying social inequalities in an effort to maintain the status quo (Sidanius & Pratto, 1999), or by those who are highly prejudiced (Grandy, 1994; Swim, Aikin, Hall, & Hunter, 1995). To some extent, the men participating in our studies would have a similar interest in maintaining the illusion of meritocracy (see also Schmitt et al., 2003). They would be motivated to see token mobility as evidence to support those beliefs, if only because to think otherwise might lead to the uncomfortable conclusion that their own relatively favorable position in contempo-
primary society may be the result of group-based advantage instead of individual merit (see also Kobrynowicz & Branscombe, 1997). Of importance, these different belief systems held by men and women suggest how difficult it can be for disadvantaged groups to recruit the support of dominant group members to address social inequality.

In sum, our research complements existing knowledge by pointing at the possible disadvantages of token mobility. Previous research suggests that token mobility tends to induce attempts at individual advancement similar to those elicited by open social systems (see Wright, 2001, for a review). However, this research did not examine whether people can actually perform optimally when pursuing individual advancement in token systems. Also, participants in prior research were not provided with information about previous ingroup experiences and therefore had no reason to doubt the meritocracy of the system. We demonstrated that when members of a historically disadvantaged group are placed in a situation with token opportunity they fail to take advantage of the opportunities presented to them. Thus, although previous research revealed that token mobility may undermine attempts at collective action, an important novel contribution of our work is that token mobility does not necessarily promote the pursuit of individual mobility.

As a result, members of a group that is historically disadvantaged may suffer from token mobility because they engage neither in individual nor in collective strategies for position improvement, despite acknowledging the unfairness of the situation. At the same time, our findings suggest that members of dominant groups will continue to endorse token systems so that social inequality is likely to prevail.

It is important to note some caveats in this research. In particular, the effect uncovered by the examination of gender differences relies on a quasi-experimental design. Further research should examine this process with a more direct manipulation of the historical backdrop against which current opportunities are evaluated. For instance, group-based stereotypes and attributions can be experimentally manipulated to examine the generalizability of our findings for other groups and situations. Future research also should examine other factors that may affect the interpretation of past group opportunities, such as the extent to which individuals regard information about past group opportunities as diagnostic of their own likelihood of success (e.g., degree of group identification or domain-specific self-confidence).

Finally, it is important to underline one particular strength of this research: the assessment of individual performance. By including indicators of individual performance, we go beyond an analysis of individual aspirations and intentions to demonstrate how structural opportunities not only affect perceived feasibility of success but determine actual achievement. It is striking that this finding was extended to the performance measure used in Study 2, which is part of an actual intelligence test. Although it has been previously demonstrated that academic abilities (as revealed on mathematics and language tests) are not diagnostic of stable individual differences, and can be the product of situational threats (Steele & Aronson, 1995), this is to our knowledge the first time that it is demonstrated that individual scores on tests of intelligence also can be subject to contextual variation connected to group expectations. This strengthens our belief that this research not only makes an important theoretical contribution to the understanding of the experiences of disadvantaged group members but is also socially relevant. Indeed, an important implication of the knowledge that individual performance can be affected by the way “people like us” have fared in the past is that any assessment of individual potential must be sensitive to the existence and impact of such beliefs and attempt to address them in such a way that opportunities that are meant to be equal actually are equal.

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