THE STEREOTYPE CONTENT MODEL:
THE ROLE PLAYED BY COMPETENCE
IN INFERRING GROUP STATUS

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In the context of the Stereotype Content Model, we investigated the "backward" inferential process that leads from competence stereotype to structural attribute of status. Three hypotheses were tested: (1) perceived competence affects attributions of status; (2) the less competent group is perceived as warmer (compensation effect); (3) membership leads to ingroup status enhancement. Two minimal groups were created; groups' competence and membership were manipulated. Findings supported the hypotheses: group status was rated higher when the target group was described as competent; groups were rated warmer when lower in competence; group status was rated higher by members than non-members.

INTRODUCING THE STEREOTYPE CONTENT MODEL

According to the Stereotype Content Model (SCM; Fiske, Cuddy, Glick, & Xu, 2002; see also, Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, & Glick, 2007), stereotypes include two basic dimensions, competence and warmth, which follow from two socio-structural attributes: the relative socio-economic status (higher vs. lower) and the kind of interdependence between groups, namely, cooperative versus competitive. A group's position in society, that is its status, allows inferences concerning competence; the kind of interdependence with other groups allows the prediction of its warmth or coldness. Hence, combining status and interdependence, a 2 × 2 table of possibilities arises (see Fiske, Xu, Cuddy, & Glick, 1999), each cell describing a specific form of prejudice, which is a consequence of the combination of warmth and competence.

The originality of the SCM lies in not describing prejudice as just a uniform antipathy or contempt toward an outgroup; in fact, some groups may be perceived in an ambivalent way, namely, high on one stereotypic dimension and low on the other. Of the four types of prejudice arising from the combination of the socio-structural attributes, two are non-ambivalent (admira-

tion for groups perceived as competent and warm; contempt for incompetent and cold groups), while the other two are characterized by ambivalence (envy for competent but cold groups; paternalism for incompetent but warm groups). According to the SCM, ambivalent combinations of competence and warmth capture many societal stereotypes. This assumption is also supported by Judd, James-Hawkins, Yzerbyt, and Kashima (2005), who found that trade-offs of competence and warmth are common when people rate individuals or groups in a comparative context.

The model's main hypotheses have been supported by numerous correlational studies (see Cuddy et al., 2008). Recently, some experimental investigations have been performed, in which status was manipulated. Results showed the expected changes in the competence attributions to the target groups (Caprariello, Cuddy, & Fiske, 2009; Oldmeadow & Fiske, 2007), or target persons (Russell & Fiske, 2008).

SCM investigators have evaluated the relationship between structural dimensions and stereotypes only in one direction, namely, from status and interdependence to competence and warmth. To our knowledge, research has not explored whether these relationships can also work in the opposite direction. One of the aims of the present study was to examine this possibility, namely, whether the perception of a group as competent or incompetent may lead perceivers to infer its social status. Furthermore, in SCM studies, the effect of membership has not been taken into consideration (see Cuddy et al., 2008). The current work intended to fill this gap by analyzing the role played by membership in the "backward" inferential process from competence to status.

A New Contribution

The importance of status in deducing the competence of a group has often been emphasized; unsuccessful groups are judged as lazy, stupid, and unambitious, while successful groups are perceived as shrewd, logical, and competitive (e.g., Jost & Banaji, 1994; LeVine & Campbell, 1972; Tajfel, 1981). However, as stated by Fiske et al. (2002), "one could argue the opposite, that the groups' actual or perceived traits give them their place in society" (p. 900). Indeed, the way in which stereotypes may affect the attribution of socio-structural features has never been analyzed. In this study we aimed to gather evidence of a backward process from competence to status; namely, we expected to find attributions of higher status to groups perceived as competent, and lower status to groups perceived as lacking in competence. We refer to this as the *alternative direction hypothesis*.

Proving that the inference process is bidirectional, first, would provide strong support to the hypothesis of the status-competence connection. In social cognition research, a strong and well-rehearsed association between two concepts is demonstrated by the presence of a bidirectional link: namely, priming one of the two concepts activates the other concept (e.g., Boccato, Capozza, Falvo, & Durante, 2008; Eberhardt, Goff, Purdie, & Davies, 2004; Goff, Eberhardt, Williams, & Jackson, 2008). Therefore, showing that from perception of status competence is deduced, and from perception of competence status is deduced demonstrates the robust relation that is perceived between these attributes, thus supporting a basic tenet of SCM.

Second, proving that from competent/non-competent behaviors status is inferred would provide further understanding of the way people make inferences in social settings. As widely demonstrated, people spontaneously make inferences from behaviors to traits in person perception (e.g., Uleman, 1987; see also Tausch, Kenworthy, & Hewstone, 2007). Hamilton and

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Sherman (1996) argued that these inductive inferences take place on-line as behavioral information is obtained. Moreover, behavior-to-trait inferences are more frequent and spontaneous than trait-to-behavior inferences (the induction-deduction asymmetry; see Maass, Cadinu, Taroni, & Masserini, 2006; Maass, Colombo, Colombo, & Sherman, 2001). At group level, it has been shown that, when people encounter information about group members (i.e., behaviors), they are likely to infer the corresponding traits, and trait inferences are easier when behavioral information is stereotype-consistent (Maass, Cadinu, Boni, & Borini, 2005; Wigboldus, Dijksterhuis, & van Knippenberg, 2003). Thus, proving that traits, inferred from behaviors, allow inferences of structural attributes would be a new contribution to this research field.

Concerning the function of inferring status from competence, this inference may be useful in modulating social interactions. People, in fact, may modulate differently their behavior according to the status they infer, being inclined to compliance and cooperation when the high status of the other group is deduced.

Our from-competence-to-status hypothesis is supported by literature on status ideologies. It has been found that people regard status as the social reward for individual ability and effort (e.g., Mitchell, Tetlock, Newman, & Lerner, 2003; Son Hing, Bobocel, & Zanna, 2002). The most common status ideology in Western societies is meritocracy, which maintains that any individual can be successful in life if he/she works hard enough or is talented enough (Pratto, Sidanius, Stallworth, & Malle, 1994; see also Major, Kaiser, O'Brien, & McCoy, 2007). The meritocratic worldview includes: the Protestant work ethic (Katz & Hass, 1988), claiming that hard work leads to success; the belief in individual mobility (Major et al., 2002), holding that individuals can improve their social position regardless of group membership; the belief in a just world, stating that individuals get what they deserve and deserve what they get (Hafer & Choma, 2009; Lerner, 1980). Thus, in Western societies, it is commonly believed that status is due to talent and abilities, and talent and abilities lead to status (see system justification theory; Jost & Banaji, 1994).

It could be argued that competent behaviors may lead to overall positive inferences, so that a group evaluated positively on competence would be evaluated positively also on warmth (i.e., the halo effect; Rosenberg, Nelson, & Vivekananthan, 1968). Actually, rather than a halo effect, one might predict a compensatory process on the warmth dimension. As it has been shown (Judd et al., 2005), when a group is evaluated less positively on one of the two stereotypic traits, it tends to be evaluated more positively on the other trait. According to Judd and colleagues' findings, the compensatory effect emerges when target groups are presented in a comparative context (Judd et al., 2005), and warmth and competence, but not other attributes (such as healthiness), are involved (Yzerbyt, Kervyn, & Judd, 2008). Finally, research has shown stronger compensation effects when competence, rather than warmth, was the manipulated dimension (Kervyn, Yzerbyt, Judd, & Nunes, 2009; Yzerbyt et al., 2008). In light of the above evidence, we predicted a compensation effect on the warmth dimension, such that the less competent group would be evaluated as more warm than the more competent group. We refer to this as the *compensation effect hypothesis*.

The current study also considered the role played by group membership in the inferential process from the stereotype to the structural attribute. Social identity theory (SIT; Tajfel & Turner, 1979; see Brown & Capozza, 2006, for recent reviews) posits that individuals are motivated to achieve a positive social identity, and high-status ingroups provide individuals with this kind of self-enhancement. SIT postulates, furthermore, that individuals actively differentiate their ingroup from relevant outgroups, in order to enhance the ingroup and, thus, their social identity.

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According to this theory, when valued traits are perceived, they should be attributed more to the ingroup than the outgroup. In the research linked to the SCM, membership has not been generally considered (see Cuddy et al., 2008; but see Oldmeadow & Fiske, in press), particularly because Fiske and colleagues analyzed societal and not personal stereotypes. Therefore, SCM groups tend to be abstract concepts, only representing people's naïve intergroup theories. SIT suggests that, when one gets to a concrete intergroup situation, membership influences people's inferences. Thus, we expected that, when a group is perceived as competent, participants will assign it a higher status in a membership than no-membership condition; seemingly, when a group is perceived as low in competence, participants will assign it a lower status when membership is not involved than when it is involved (*membership hypothesis*). According to social identity theory (Tajfel & Turner, 1979), in fact, group members are motivated to protect (high-status groups) or to enhance (low-status groups) their collective identity (see Scheepers, Spears, Doosje, & Manstead, 2006); for dimensions related to status, laboratory low-status groups, although acknowledging their inferiority, tend to attenuate the status difference compared to high-status groups (Sachdev & Bourhis, 1987; see also Bettencourt, Dorr, Charlton, & Hume, 2001; Ellemers & Barreto, 2001; Mullen, Brown, & Smith, 1992).

Summarizing, the main hypotheses of the current study were the following: (1) perceived competence affects the endorsement of status, leading to attributions of higher status when the group is described as high rather than low in competence (alternative direction hypothesis); (2) the low-competence group is perceived as more warm than the high-competence group (compensation effect hypothesis); (3) membership influences the evaluations of status, leading to an overevaluation of the target group status in the membership condition (membership hypothesis).

A laboratory study was performed, in which the level of competence of target groups was manipulated. Membership was created through a minimal group manipulation. Participants rated two fictitious groups (Greens and Blues) on several items, measuring status, competence, and warmth. We included measures of competition and cooperation, being interested in exploring the impact of competence on these structural dimensions. In the SCM, competence is linked to status, but unrelated to the attribute of goal interdependence. Therefore, we should find, that the competence manipulation does not affect inferences concerning the cooperative versus competitive relationships of the target group. A similar finding would add further evidence in favor of the SCM.

The experimental design was thus defined by two between-participants variables: Greens' competence (high vs. low) and membership (membership in the Green group vs. no-membership). Part of the procedure was borrowed from Judd et al. (2005).

METHOD

Participants

Participants were 88 Princeton University undergraduates who participated in exchange for course credits (60 women, 27 men, 1 did not indicate gender). Mean age was 19.43 years (*SD* = 1.30). Of the participants, 54 (61.4%) identified themselves as White or Caucasian, 17 (19.3%) as Asian-American, 10 (11.4%) as African-American, 5 (5.7%) as Latinos, 1 (1.1%) as Arabic, leaving 1 (1.1%) unknown. In each experimental condition, 22 participants were examined.

Procedure and Measures

The experiment was run via computer. Participants arrived at the laboratory and filled out an informed-consent form. In the membership condition, the first step of the procedure was to create the ingroup/outgroup categorization. Participants read instructions concerning a test that could divide people into two groups according to their perceptual abilities. The "fake" test was the dot-estimation task, often used in the minimal group paradigm (see Brewer, Manzi, & Shaw, 1993). After reading the instructions, participants saw images of numerous dots spread around the screen and organized so to create different shapes. Participants were asked to enter their estimate of the dot number, immediately after the 4-second presentation of each image. Then, participants received a bogus feedback. On the computer monitor, they read that the test classified them as "Greens," and people included in the Greens were those providing an estimate slightly exceeding the correct one; namely, Greens overestimated the number of dots. It was also mentioned that people categorized as "Blues" were those who underestimated the number of dots. To make the manipulation more credible, participants read: "The test you have just taken is part of a study involving several American universities. Recently, American scientists have demonstrated that the ability to estimate the number of dots appearing on a screen for just a few seconds is strongly correlated with other abilities. Also in Europe, researchers are collecting data to corroborate such a test. The goal is to use it as a career assessment test."

Participants assigned to the no-membership condition did not perform the dot-estimation task, and started the experiment from the second step of the procedure. In both membership and no-membership condition, participants were asked to form impressions of the two groups (Greens and Blues), based on behaviors that fictitious members had performed. In the membership condition, the Greens and Blues were often identified as the "ingroup" and the "outgroup." Participants read 32 behavioral descriptions borrowed from Judd et al. (2005): 16 relating to the Greens, 16 pertaining to the Blues. Each behavior was presented individually on the screen for 7 seconds. Behaviors from the two groups were intermixed, and presented in a random order. Then, participants were asked to read behaviors a second time, but one group at a time starting with the Greens' behaviors.

Competence was manipulated as follows. *Greens' high-competence condition*: for each participant, of the 16 behaviors used to describe the Greens, six were randomly taken from the high-competence end (e.g., "X published a short story in a literary magazine while still in college"), and two from the low-competence end (e.g., "X did poorly on the exam because of mixing up the chapters that needed to be studied"); two behaviors were taken from each end of the warmth dimension (the non-manipulated dimension), and four were neutral, non-diagnostic of competence or warmth.[1] In this condition, the Blues were described with six low- and two high-competence behaviors; four behaviors were neutral, and warmth was represented by two warm and two non-warm behaviors. *Greens' low-competence condition*: Greens were described with six low- and two high-competence behaviors, while Blues were described with six high- and two low-competence behaviors. Warmth was non-manipulated as in the above condition. With regard to the no-membership condition, participants read the descriptions relative to the members of both groups, but did not have any reason to identify with one or the other group.

At the end of the behaviors' presentation, participants assigned to the membership condition were asked "Were you a Green or a Blue?" A questionnaire was then administered, where

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participants rated both minimal groups on items measuring competence, warmth, competition, cooperation; they also rated the Greens' status (see Appendix). A 9-step scale was used, ranging from *not at all* (–4) to *very much* (4) with a *neutral* choice in the middle (0). At the end of the questionnaire, a recognition task was administered, checking whether participants had paid attention to the behaviors presented. A list of nine behaviors was presented: five were taken from the experimental material, while four were new behaviors. Participants' task was to recognize which behaviors they had seen on the screen. Finally, participants were debriefed, thanked, and dismissed.

RESULTS

Manipulation Check

An initial screening revealed that 39 participants answered all questions of the memory test correctly, 48 made one mistake, and only one failed in recognizing two behaviors. Given the low number of errors, we kept all participants for the following analyses.

All participants assigned to the membership condition categorized themselves as Greens. Competence items were used to check the manipulation of the high- versus low-competence variable. We expected an interaction between Greens' competence and target group (Greens vs. Blues), namely, Greens should be rated as more competent in the condition of Greens' high-competence, and Blues in the condition of Greens' low-competence.

Negative traits for competence were reverse-coded so that higher numbers indicated higher competence. Alpha was .80 for the target Greens, and .81 the target Blues. Items were averaged to form reliable composite scores. A 2 (Greens' competence: high vs. low) × 2 (membership: membership vs. no-membership) × 2 (target group: Greens vs. Blues) ANOVA was applied, with the last factor serving as a within-participants factor. ANOVA revealed a Greens' Competence × Target Group interaction, $F(1, 84) = 103.46$, $p < .001$ (Table 1). In the high-competence condition, Greens were rated as more competent ($M = 1.92$) than Blues ($M = –0.49$), $t(43) = 6.43$, $p < .001$, while in the low-competence condition, they were rated as less competent ($M = –0.32$) than Blues ($M = 1.94$), $t(43) = 8.77$, $p < .001$. No other main effect or interaction was found, $Fs < 1$. Results thus showed the efficacy of the manipulation of competence.

TABLE 1
Competence ratings as a function of Greens' competence and target group

Target group	Greens' competence			
	High		Low	
	Mean	*SD*	*Mean*	*SD*
Greens	1.92_a	1.34	$–0.32_b$	1.14
Blues	$–0.49_b$	1.46	1.94_a	1.14

Note. Means are on a 9-step scale: –4 = *not at all*, 0 = *neutral*, and 4 = *very much*. Within each column and row, the different subscript indicates that the two means are different, $p < .001$.

Distinction between the Measures of Competence and Status

The alpha for the Greens' status scale was .87. To check whether the items of status and those of competence (see Appendix) measured distinct constructs, confirmatory factor analysis (CFA) was applied (LISREL 8.7; Jöreskog & Sörbom, 2004). In using CFA, the number of parameters to estimate was reduced by creating two parcels for each latent variable. The item-to-construct balance method by Little, Cunningham, Shahar, and Widaman (2002) was used. First, for each construct a measurement model was tested, which allowed us to estimate the loadings of the respective items. Second, loadings were arranged in a decreasing order, and the first two items were used to anchor the two parcels. The following items were included in an inverted order (namely, the least loaded item and the most loaded item were aggregated). Goodness-of-fit indices showed that the bi-factor model explained the data very well, $\chi^2(1) = 0.40$, $p = .52$; CFI = 1.00; SRMR = .005: the chi-square was nonsignificant, CFI was greater than .95, and SRMR was lower than .08 (see Hu & Bentler, 1999). Loadings were high and reliable (λs $\geq$. 84, ps < .001); more important, the correlation between competence and status was high ($\phi = .79$, $p < .001$), but significantly lower than 1 ($p < .05$). In fact the confidence interval, obtained by considering two standard errors above and two standard errors below the estimated correlation ($SE = .06$), did not include the perfect correlation. Fit was, instead, poor for the model in which all the four parcels were loaded on the same factor, $\chi^2(2) = 34.00$, $p \cong .00$; CFI = .87; SRMR = .064. This analysis showed that competence and status were measured as distinct, though — as assumed — related, constructs.

Relationship between Competence and Status

Status items were averaged to create a composite score. A 2 (Greens' competence) × 2 (membership) ANOVA revealed a significant main effect for Greens' competence, $F(1, 84) = 35.49$, $p < .001$. Greens' status depended on their competence: it was rated higher in the high- than low-competence condition ($M = 1.61$, $SD = 1.37$ vs. $M = -0.20$, $SD = 1.53$, respectively). Moreover, results showed a main effect of membership, $F(1, 84) = 4.30$, $p < .05$: Greens' status was rated higher when participants belonged ($M = 1.02$, $SD = 1.64$) than when they did not belong to the Green group ($M = 0.39$, $SD = 1.74$). Interaction was nonsignificant, $F(1, 84) = 1.06$, $p > .30$. Thus, as expected, both competence and social identity affected the evaluations of the target group's status.

Mediational Effects of Perceived Competence

To test whether the effects on status of the manipulation of competence were due to the inferred perceptions of competence, a mediational analysis was performed: Greens' competence (high vs. low) was the initial variable, Greens' status the outcome, and perceived Greens' competence the mediator. As shown in Figure 1, a total mediation effect was found, demonstrated by a significant Sobel test, $z = 5.00$, $p < .001$. As expected, changes in the status attributions, accord-

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ing to the manipulation of competence, were fully explained by changes in the perceptions of competence.
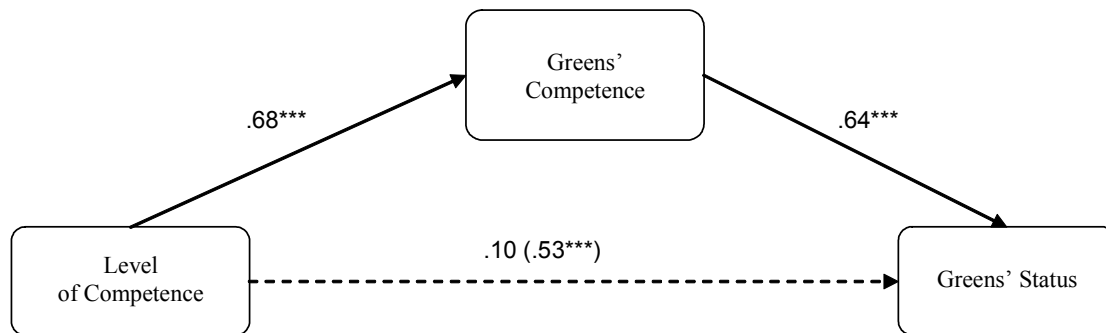

FIGURE 1
Perceived competence as a mediator of levels of competence on status attributions
(standardized regression coefficients, the unmediated effect is given in parentheses).

Compensation Effects on Warmth Dimension

Negative traits for warmth were reverse-coded and alphas were calculated (.63 for the target Greens; .67 for the target Blues). Items were averaged to form reliable scores. A 2 (Greens' competence) × 2 (membership) × 2 (target group) mixed ANOVA was run. Results showed a Greens' Competence × Target Group interaction, $F(1, 84) = 5.35$, $p < .03$. In the condition of Greens' high-competence, although not reliably (Table 2), Blues tended to be evaluated higher on warmth compared to Greens ($M = 0.69$ vs. $M = 0.41$), $t < 1$; in the condition of Greens' low-competence, Greens were rated higher on warmth than Blues ($M = 0.91$ vs. $M = 0.08$), $t(43) = 2.52$, $p < .02$. In other words, the non-competent group was judged warmer than the competent group. No other main effect or interaction was found, $Fs(1, 84) \le 1.31$, $ps > .25$.

TABLE 2
Warmth ratings as a function of Greens' competence and the target group

Target group	Greens' competence			
	High		Low	
	Mean	*SD*	*Mean*	*SD*
Greens	0.41$_a$	1.30	0.91$_a$	1.25
Blues	0.69$_a$	1.31	0.08$_b$	1.30

Note. Means are on a 9-step scale: –4 = *not at all*, 0 = *neutral*, and 4 = *very much*. Within each column and row, the different subscript indicates that the two means are different, $p < .04$.

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Effects on Competition and Cooperation

Alphas for cooperation and competition were .77 and .75, respectively. A 2 (Green's competence) × 2 (membership) ANOVA showed nonsignificant effects for competition, $Fs \leq 2.63$, $ps > .10$. The same analysis, performed on cooperation, revealed a significant main effect for membership, $F(1, 84) = 8.04$, $p < .007$. In the membership condition participants assigned higher scores on cooperation ($M = 2.02$, $SD = 1.38$) than in the no-membership condition ($M = 1.23$, $SD = 1.24$). No other main effect or interaction was significant, $Fs < 1$.

DISCUSSION

The present study aimed to provide a new understanding of the relationship between stereotypes and structural attributes. SCM studies (see Cuddy et al., 2008) have demonstrated how status can predict competence (e.g., Caprariello et al., 2009; Oldmeadow & Fiske, 2007). We argued that this relationship could also work in the other direction, namely, groups' perceived competence could affect the prediction of their place in society (alternative direction hypothesis). Linking social identity theory to the SCM, we further assumed that, in intergroup settings, membership may be an important factor, affecting the inferential processes (membership hypothesis). Finally, we predicted that the manipulation of competence, coupled with ambiguous information on warmth, may affect warmth evaluations, in line with the compensation model (Judd et al., 2005; compensation effect hypothesis).

Findings confirmed our hypotheses. In the condition in which the target group was defined by high-competence behaviors, status attributions were higher than in the condition in which it was defined by low-competence behaviors. This effect was fully mediated by the stereotype of competence. Although this result, reflecting meritocratic ideology, is not surprising, it is new: to our knowledge, it has never been found, neither in the laboratory nor with minimal groups. The evidence of a process leading from competence behaviors to status offers additional support to the SCM, showing the bidirectional nature — and thus the strength — of the competence-status association. Our data support the model also by showing that the competence manipulation does not affect the other structural attribute, namely, the perception of competition/cooperation. The independence between competence and competition/cooperation is another basic tenet of SCM.

The prediction concerning membership was also confirmed: status attributions were higher in the membership than no-membership condition, namely, in the membership condition processes of ingroup elevation were present. The unexpected effect of membership on cooperation may also be seen as an expression of ingroup enhancement. Our work makes it clear that, moving from an overarching societal view toward a specific intergroup context, we cannot forget membership, which plays a basic role in social judgment processes.

Finally, our results support the compensation effect hypothesis: the less competent group was perceived as more warm than the competent one. This effect was not moderated by membership, namely, compensation was not different in the membership versus no-membership condition. The independence between membership salience and the compensation effect was also found by Kervyn et al. (2009; Study 1). In their experiment, in fact, identification influenced the stereotypic traits with the same strength, both when they had and when they did not have a

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counter-balancing function. In Kervyn et al.'s study, however, identification affected both stereotypic traits. In our work, the lack of membership effects on warmth (and competence) could depend on the fact that membership is a more distal predictor of attributions than identification. In future studies, a measure of identification should be considered.

A limitation of our study is that only the competence-status relationship was analyzed. In future research, warmth should be manipulated as well to evaluate its effects on competition/cooperation, and its independence from the structural attribute of status.

As stated above, the meritocratic ideology is widespread in Western societies. It would be interesting to investigate the backward inferential process in cultures where this status ideology is not so dominant (e.g., collectivistic cultures). Confirming the SCM, Cuddy et al. (2009) found the expected relation between status and competence in collectivistic cultures (i.e., China, Japan, and South Korea). However, they also discovered that these samples did not locate ingroups and reference groups in the high-competence/high-warmth cluster, as it is generally found in individualistic societies. Thus, the alternative inferential process might not be found either in cultures where meritocracy is not the dominant status ideology.

To conclude, this work not only underlines the strength of the link between competence and status, and shows the importance of considering membership, it also contributes to the understanding of the way people make inferences (e.g., Maass, et al., 2001; Uleman, 1987) — at group level — from behaviors to traits, to socio-structural attributes.

NOTE

1. An item expressing high warmth was, for instance: "X loves to be with other people"; an item expressing low warmth was: "X yelled at the driver who took the empty parking space." A neutral behavior was: "X likes to go for bike rides in the park."

REFERENCES

Bettencourt, B. A., Dorr, N., Charlton, K., & Hume, D. L. (2001). Status differences and in-group bias: A meta-analytic examination of the effects of status stability, status legitimacy, and group permeability. *Psycholological Bulletin*, *137*, 520-542.

Boccato, G., Capozza, D., Falvo, R., & Durante, F. (2008). The missing link: Ingroup, outgroup and the human species. *Social Cognition*, *26*, 224-234.

Brewer, M. B., Manzi, J. M., & Shaw, J. S. (1993). In-group identification as a function of depersonalization, distinctiveness, and status. *Psychological Science*, *4*, 88-92.

Brown, R., & Capozza, D. (2006) (Eds). *Social identities: Motivational, emotional, cultural influences*. Hove, England: Psychology Press.

Caprariello, P. A., Cuddy, A. J. C., & Fiske, S. T. (2009). Social structure shapes cultural stereotypes and emotions: A causal test of the Stereotype Content Model. *Group Processes and Intergroup Relations*, *12*, 147-155.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The Stereotype Content Model and the BIAS Map. In M. P. Zanna (Ed.) *Advances in Experimental Social Psychology* (Vol. 40, pp. 61-149). New York: Academic Press.

Cuddy, A. J. C., Fiske, S. T., Kwan, V. S. Y., Glick, P., Demoulin, S., Leyens, J. Ph., et al. (2009). Stereotype content model across cultures: Towards universal similarities and some differences. *British Journal of Social Psychology*, *48,* 1-33.

Eberhardt, J. L., Goff, P. A., Purdie, V. J., & Davies, P. G. (2004). Seeing Black: Race, crime, and visual processing. *Journal of Personality and Social Psychology*, *87*, 876-893.

Eckes, T. (2002). Paternalistic and envious gender stereotypes: Testing predictions from the stereotype content model. *Sex Roles, 47*, 99-114.

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Ellemers, N., & Barreto, E. (2001). The impact of relative group status: Affective, perceptual, and behavioural consequences. In R. Brown & S. Gaertner (Eds.), *The Blackwell Handbook of Social Psychology* (Vol. 4, pp. 324-343). Oxford, England: Blackwell.

Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social perception: Warmth and competence. *Trends in Cognitive Sciences*, *11*, 77-83.

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878-902.

Fiske, S. T., Xu, J., Cuddy, A. J. C., & Glick, P. (1999). (Dis)respecting versus (dis)liking: Status and interdependence predict ambivalent stereotypes of competence and warmth. *Journal of Social Issues*, *55*, 473-491.

Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: Implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, *94*, 292-306.

Hafer, C. L., & Choma, B. L. (2009). Belief in a just world, perceived fairness, and justification of the status quo. In J. Jost, A. C. Kay, H. Thorisdottir (Eds.), *Social and psychological bases of ideology and system justification. Series in political psychology* (pp. 107-125). New York: Oxford University Press.

Hamilton, D. L., & Sherman, J. S. (1996). Perceiving persons and groups. *Psychological Review*, *103*, 336-355.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 11-55.

Jöreskog, K. G., & Sörbom, D. (2004). *LISREL 8.7 for Windows* [Computer Software]. Lincolnwood, IL: Scientific Software International, Inc.

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and production of false consciousness. *British Journal of Social Psychology*, *33*, 1-27.

Judd, C. M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: Understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, *89*, 899-913.

Katz, I., & Hass, R. G. (1988). Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structures. *Journal of Personality and Social Psychology*, *55*, 893-905.

Kervyn, N., Yzerbyt, V., Judd, C. M., & Nunes, A. (2009). A question of compensation: The social life of the fundamental dimensions of social perception. *Journal of Personality and Social Psychology*, *96*, 828-842.

Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion.* New York: Plenum Press.

LeVine, R. A., & Campbell, D. T. (1972). Ethnocentrism: Theories of conflict, ethnic attitudes, and group behavior. Oxford, England: Wiley.

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, *9*, 151-173.

Maass, A., Cadinu, M., Boni, M., & Borini, C. (2005). Converting verbs into adjectives: Asymmetrical memory distortions for stereotypic and counterstereotypic information. *Group Processes & Intergroup Relations*, *8*, 271-290.

Maass, A., Cadinu, M., Taroni, M., & Masserini, M. (2006). The induction-deduction asymmetry: Fact or Artifact? *Social Cognition*, *24*, 74-109.

Maass, A., Colombo, A., Colombo, A., & Sherman, S. J. (2001). Inferring traits from behaviors versus behaviors from traits: The induction-deduction asymmetry. *Journal of Personality and Social Psychology*, *81*, 391-404.

Major, B., Gramzow, R., McCoy, S. K., Levin, S., Schmader, T., & Sidanius, J. (2002). Perceiving personal discrimination: The role of group status and status legitimizing ideology. *Journal of Personality and Social Psychology*, *80*, 782-796.

Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology*, *92*, 1068-1086.

Mitchell, G., Tetlock, P. E., Newman, D. G., & Lerner, J. S. (2003). Experiments behind the veil: Structural influences on Judgements of Social Justice. *Political Psychology*, *24*, 519-547.

Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology*, *22*, 103-122.

Oldmeadow, J., & Fiske, S. T. (2007). System-justifying ideologies moderate status = competence stereotypes: Roles for belief in a just world and social dominance orientation. *European Journal of Social Psychology*, *37*, 1135-1148.

Oldmeadow, J., & Fiske, S. T. (in press). Social status and the pursuit of positive social identity: Systematic domains of intergroup differentiation and discrimination for high- and low-status groups. *Group Processes and Intergroup Relations*.

Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personal-

TPM

ity variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, *67*, 741-763.

Rosenberg, S., Nelson, C., & Vivekananthan, P. S. (1968). A multidimensional approach to the structure of personality impressions. *Journal of Personality and Social Psychology*, *9*, 283-294.

Russell, A. M., & Fiske, S. T. (2008). It's all relative: Competition and status drive interpersonal perception. *European Journal of Social Psychology*, *38*, 1193-1201.

Sachdev, I., & Bourhis, R. Y. (1987). Status differentials and intergroup behaviour. *European Journal of Social Psychology*, *17*, 277-293.

Scheepers, D., Spears, R., Doosje, B., & Manstead, A. S. R. (2006). Diversity in in-group bias: Structural factors, situational features, and social functions. *Journal of Personality and Social Psychology*, *90,* 944-960.

Son Hing, L. S., Bobocel, D. R., & Zanna, M. P. (2002). Meritocracy and opposition to affirmative action: Making concessions in the face of discrimination. *Journal of Personality and Social Psychology*, *83*, 493-509.

Tajfel, H. (1981). *Human groups and social categories.* Cambridge, England: Cambridge University Press.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In S. Worchel & W. G. Austin (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks-Cole.

Tausch, N., Kenworthy, J., & Hewstone, M. (2007). The confirmability and disconfirmability of trait concepts revisited: Does content matter? *Journal of Personality and Social Psychology*, *92*, 554-556.

Uleman, J. S. (1987). Consciousness and control: The case of spontaneous inferences. *Personality and Social Psychology Bulletin*, *13*, 337-354.

Wigboldus, D. H. J., Dijksterhuis, A., & van Knippenberg, A. (2003). When stereotypes get in the way: Stereotypes obstruct stereotype-inconsistent trait inferences. *Journal of Personality and Social Psychology*, *84*, 470-484.

Yzerbyt, V., Kervyn, N., & Judd, C. M. (2008). Compensation versus halo: The unique relations between the fundamental dimensions of social judgments. *Personality and Social Psychology Bulletin*, *34*, 1110-1123.

APPENDIX

Measures of Constructs

Construct	Traits and items
Competence (Judd et al., 2005)	Capable, skilled, lazy, disorganized.
Warmth (Judd et al., 2005)	Sociable, caring, unfriendly, insensitive.
Status	The *Greens* possess the abilities to reach prestigious positions; the *Greens* are successful people in society; the *Greens* are natural leaders; the *Greens* stand on a very important positions on the social scale.
Competition (Fiske et al., 2002)	If the *Blues* get special breaks (such as preference in hiring decisions) this is likely to make things more difficult for the *Greens;* resources that go to members of the *Blue* group are likely to take away from the Greens' resources; benefits allocated to the *Blues* are likely to take away from *Greens'* benefits.
Cooperation (Eckes, 2002)	There can exist a fair give-and-take between the *Greens* and the *Blues;* the *Greens* can be in a cooperative relationship with the *Blues*; there can be cooperation, in various social contexts, between the *Greens* and the *Blues.*