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Comparison Focus in Intergroup Comparisons: Who We Compare to Whom Influences Who We See as Powerful and Agentic

Susanne Bruckmüller1 and Andrea E. Abele1

Abstract
In intergroup comparisons one group usually becomes the implicit norm that other groups are compared to. Three studies address the consequences that the direction of the comparison has for perceptions of the compared groups. For real groups (Experiment 1) and fictitious groups (Experiments 2 and 3) participants perceived a group as more powerful and higher in status when it had been the norm rather than the effect to be explained in a text comparing two groups. Moreover, norm groups and their “typical” members were perceived as more agentic and less communal than comparison groups, and these attributions were mediated by the ascription of power. The authors conclude that systematic ways of explaining one group rather than another could serve as a subtle tool to perpetuate the status quo of intergroup power relations.

Keywords
intergroup comparison, normativity, communication, power, fundamental dimensions

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Social scientists often relate social groups to each other and try to explain intergroup differences. However, there are different ways to talk about similarities and differences between social groups. For example, one can compare Group A to Group B and focus on how A is different from B, or one can compare Group B to Group A, thus focusing on Group B. Although logically equivalent, the first comparison renders Group B the implicit norm and Group A the deviation from that norm, whereas Group A is the implicit norm in the second comparison (e.g., Miller, Taylor, & Buck, 1991). Previous research has shown that who is compared to whom follows systematic principles (e.g., Grier & McGill, 2000; Hegarty & Pratto, 2001, 2004; Miller et al., 1991) that can be predicted from norm theory (Kahneman & Miller, 1986). Such systematic patterns in linguistic practices carry a very subtle and thus often unrecognized form of discrimination: They implicitly conflate certain group identities with the norm that other groups are contrasted against (Perry, 2001; Pratto, Hegarty, & Korchmaros, 2007).

Although previous research has mostly focused on who we tend to compare to whom and why (e.g., Hegarty & Pratto, 2001; Miller et al., 1991), the present research is concerned with the psychological consequences of such systematic patterns in intergroup comparisons. Does the way we talk about intergroup differences influence how we perceive social groups and their relation to each other? Specifically, does making one group the norm and another group the deviant from this norm affect inferences regarding the distribution of power and status between the groups? Does it influence the attribution of traits related to power and status? If the direction of the comparison does influence perceptions of the distribution of power between social groups, systematic normativity effects, such as explaining why women differ from men rather than why men differ from women (Miller et al., 1991), could serve as a subtle tool to perpetuate the status quo of intergroup power relations.

A Norm Theory Account of Intergroup Comparisons
When people try to make sense of intergroup differences, they rarely focus on the difference itself but rather tend to
explain why one group differs from the other (Miller et al., 1991). One group serves as the implicit norm or the referent; the other group becomes “the effect to be explained” (Miller et al., 1991, p. 5) or the subject of comparison. Which comparison focus people adopt, that is, who they compare to whom, can be predicted from norm theory (Kahneman & Miller, 1986). According to this theory, norms are temporary patterns of knowledge activation that people form ad hoc by activating knowledge about category exemplars. The exemplars that come to mind most easily—for instance, prototypical group members—define what people see as characteristic or “normal” for a category (Kahneman & Miller, 1986; Pratto et al., 2007; Smith & Zárate, 1990).

When people try to make sense of intergroup differences, groups perceived as more typical (and thus normative) become the referent against which other groups are compared; explanations of differences focus on less typical groups (e.g., Miller et al., 1991; Pratto et al., 2007). This tendency to compare less typical groups to typical groups may be related to the more general linguistic norm to place more “prominent” objects in the referent position (Tversky, 1977).

Who is perceived as normative for a category does not need to have a logical or statistical basis but is grounded in culturally shared assumptions about what a category looks like (e.g., Devos & Banaji, 2005). One important factor influencing which groups are seen as normative is power. The conflation of one’s subjectivity with the norm for all people is a privilege afforded to the powerful in a society (DeBeauvoir, 1949; Edley & Wetherell, 1995; McIntosh, 1992). For example, membership in the category “human” is often conflated with privileged identities such as Whiteness (e.g., Devos & Banaji, 2005; Perry, 2001) or masculinity (e.g., Bem, 1993; Eagly & Kite, 1987). As a consequence, we tend to explain intergroup differences by focusing on how less powerful groups differ from those in power rather than vice versa (Pratto et al., 2007).

Other consequences that might help to maintain the norm group’s privileges such as perpetuation of the status quo or stigmatization of nonnormative groups have been discussed theoretically (e.g., Bem, 1993; Hegarty & Pratto, 2001; Miller et al., 1991) but to the best of our knowledge have not been addressed empirically.

However, we found one study suggesting that expectations based on the linguistic norm to place prominent objects in the referent position (Tversky, 1977) can influence the perception of novel stimuli. Gleitman, Gleitman, Miller, and Ostrin (1996, Experiment 5) provided their participants with symmetrical sentences, that is, sentences including predicates such as meet, near, or equal to, in which the nouns were replaced by nonsense syllables, for example, “ZUM is near GAX.” Participants intuitively thought that the referent syllable (GAX in the example) was more famous, more important, older, bigger, and less mobile than the subject syllable. Participants used their implicit knowledge about linguistic practices to infer information beyond the semantic content of the statements.

Comparison focus and attributions of power and status. Communication practices are an important factor in the cycle of cultural reproduction (Corson, 1995; Kashima, Klein, & Clark, 2007). We propose that systematic ways of explaining one group rather than another can serve as a subtle tool to perpetuate the status quo of power relations between social groups because they affect how people perceive the distribution of power and status. Powerful groups are more likely to become the norm in intergroup comparisons than less powerful groups (see above). Thus, the comparison focus implicitly carries information about the relative standing of the two groups on the dimension of power. We propose that people automatically decode this implicit information to infer the distribution of power in the respective intergroup context.

Some first evidence that people do use their implicit knowledge of communication practices to decode information beyond the literal content of a message about members of different social groups comes from a recent study on the use of shifting standards in communication (Collins, Biernat, & Eidelman, 2009). Participants who read another participant’s subjective evaluation of a target’s performance implicitly “knew” that this evaluation meant different things depending on the group that the target belonged to—what is “good performance” for one target may only be “average” for another. Applying this implicit knowledge, they (over)corrected for these shifting standards when they inferred objective information from another participant’s subjective evaluations.

In a similar vein, we propose that people implicitly know that the more powerful one of two groups tends to be the norm in intergroup comparisons and use the direction of the comparison as one source of information for inferences regarding the distribution of power between the groups. Just as the sentence structure of symmetrical statements carries implicit information about the relative social (fame,
importance, age) and physical (size, mobility) prominence of an object (Gleitman et al., 1996) and just as people implicitly decode shifting standards in communications about individual members of different social groups (Collins et al., 2009), people may be implicitly aware of the linguistic practice to compare low-power groups to high-power groups and use the comparison focus as one source of information about the relative standing of two groups with regard to power. All else being equal, this should lead to a perception of the group constituting the norm in a comparison as more powerful than a group constituting the effect to be explained.

Thus, we predict that (Hypothesis 1; H1) participants will attribute relatively more power and status to a group when this group is the referent (in the following, norm group) in an intergroup comparison than when it is the subject of comparison (comparison group).

Attribution of agency and communion. In addition, we were interested in whether the comparison focus influences the attribution of stereotypical traits related to power and status, specifically, whether who is compared to whom influences the attribution of agentic and communal traits to two compared groups.

Agency and communion—or the conceptually similar constructs of competence and warmth—are fundamental dimensions of social judgment (Abele & Wojciszke, 2007; Fiske, Cuddy, & Glick, 2002). The agency dimension is captured by traits related to self-assertion, efficacy, and ability; the communion dimension comprises traits related to cooperation with others, empathy, and morality.

Previous research has shown that a group’s status predicts attributions of agency or competence to the respective group (Conway, Pizzamiglio, & Mount, 1996; Fiske, Cuddy, Glick, & Xu, 2002). Consequently, if groups representing the norm in an intergroup comparison are perceived as more powerful and higher in status, these groups should also be seen as more agentic than the groups that are compared to them. Thus, we predict that (Hypothesis 2; H2) participants will attribute higher agency to norm groups than to comparison groups.

Does a group’s power and status also influence this group’s perceived communion or warmth? Attributions of warmth primarily depend on perceived competition with one’s own group (Fiske et al., 2002). However, some authors have also argued that groups and individuals low in power need to be particularly attentive to powerful groups’ and individuals’ attitudes and behaviors (Fiske, 1993; see Dépret & Fiske, 1993), and attending to another person’s needs and desires is one aspect of communion (Bakan, 1966). Following this line of reasoning, Conway and others (1996) assert that low-status individuals and groups should be expected and perceived to be more communal than those holding high-status positions. Indeed, their participants attributed higher communion to low-status groups than to high status groups. We thus predict that (Hypothesis 3; H3) participants will attribute more communion to comparison groups than to norm groups.

Present Research

Three experiments tested these predictions. Participants always read a text that compared two groups and adopted one of the two possible comparison foci, thereby systematically making one group the norm and the other group the effect to be explained. We assessed participants’ perceptions of the distribution of power and status between the groups as well as attributions of agency and communion to the groups and their members. Experiment 1 tested our hypotheses with regard to real social groups; Experiments 2 and 3 used fictitious groups unknown to our participants.

We were primarily interested in how the direction of the comparison between two groups influences how people construct the groups in relation to each other and how they perceive the distribution of power between the groups. Moreover, power usually means control over others (Fiske, 1993) and is an inherently relative construct. Therefore, ratings of power and status were relative in all three experiments; that is, we measured participants’ perception of the distribution of power between the two groups rather than asking them to rate the groups with regard to some abstract standard of power.

Experiment 1

In Experiment 1, we provided participants with a text comparing two real groups: law students and economics students. We selected these groups based on the assumption that stereotypically they are perceived as relatively similar with regard to status, agency, and communion. The text included the same information for all participants. However, we manipulated whether it compared law students and graduates to economics students and graduates or economics students and graduates to law students and graduates. Afterward, participants answered some questions regarding their perceptions of students and graduates of the respective majors.

We expected that participants would implicitly use the direction of the comparison as one source of information regarding the distribution of power and status between the groups and thus perceive a group as relatively more powerful when it had been the norm in the text rather than the effect to be explained. Moreover, we expected attributions of higher agency and lower communion to the group perceived as more powerful, that is, the norm group, than to the group perceived as less powerful, that is, the comparison group.

Method

Participants and design. A total of 32 female and 48 male German university students (age M = 23.3 years, SD = 2.3)
who had never been enrolled in law or economics participated in the study. An experimenter solicited participation on campus and distributed surveys that randomly assigned participants to conditions in a 2 (norm condition: economics norm, law norm) by 2 (order in dependent variables [DVs]: norm group first, comparison group first; see below) design.

Materials and procedure—Manipulation of the comparison focus. Participants first read a one-page text that either compared law students and graduates to economics students and graduates (economics norm condition) or vice versa (law norm condition). A sample paragraph from the economics norm condition (law norm condition in parentheses) is reproduced below:

The total number of students enrolled in Law (Economics) is lower (higher) than the number of students enrolled in Economics (Law). . . . Compared to Economics (Law) graduates, a smaller (higher) percentage of Law (Economics) graduates works in private business while a higher (lower) percentage is state employed.

The information presented in the text was consistent with actual similarities and differences between the two study majors in Germany. The factual information was the same in both conditions, only the direction of the comparison changed. However, the text contained an equal number of positive and negative statements about each of the two groups.

Perceptions of power and status. Next, participants answered six items concerning status and power differences between law and economics graduates (e.g., “Who has higher prestige in society?” “Who has more influence in society?” “Who has better chances to rise to positions of organizational leadership?”) Cronbach’s \( \alpha = .58 \). Participants made their judgment on 10 cm lines that either ranged from law graduates to economics graduates or from economics graduates to law graduates. We varied which target group appeared to the left of the line because order of presentation can influence the temporary construction of mental norms (Hegarty & Chryssochoou, 2005; Kahneman & Miller, 1986). We instructed participants to mark the middle of the line if they thought that the statement applied equally to both groups and to move to the left or the right to the extent that they thought the groups differed.

Attribution of agency and communion. Next, we asked participants for their impression of the “typical student” of the two majors. They indicated on 10 cm bipolar lines which of the groups they perceived as having more of five communal (understanding, cooperative, honest, tolerant, friendly; \( \alpha = .69 \)) and four agentic attributes (active, assertive, persistent, and independent; \( \alpha = .52 \)). Which group appeared first, that is, to the left of the line, was always the same as for the power measures.

Controls. Participants then indicated their age, gender, study major, and year in university. In addition, we asked how many friends participants had majoring in economics and law and tested for suspicion. Although two participants commented on the fact that the text had described the groups in comparison to each other, neither of them saw a connection to the status and power measures.

Results and Discussion

We excluded four participants from the analyses who reported an extremely high number of friends in law or economics (more than 3 SDs above the mean).

We measured the line judgments as deviations from the midpoint in centimeters with one decimal place (i.e., in millimeters) and coded them such that positive values indicate a higher rating of law graduates than economics graduates whereas negative values indicate a higher rating of economics graduates. The unit of means and SDs reported below is centimeters.

Perceptions of power and status. Figure 1 summarizes the effects of norm condition on the dependent variables. An ANOVA with the factors norm condition, order in DVs, and participant gender revealed a significant main effect of norm condition, \( F(1, 68) = 6.49, p < .02 \). As predicted, participants perceived law graduates (relative to economics graduates) as more powerful and higher in status in the law norm condition \( (M = 0.34, SD = 1.13) \) than in the economics norm condition \( (M = -0.28, SD = 1.27) \), \( d = 0.52 \). Since participants made their ratings on bipolar lines, this also indicates ascription of relatively more power to economics graduates in the economics norm condition than in the law norm condition.

This supports our primary hypothesis that who we compare to whom has important implications for the perception of power relations between social groups. When the text framed differences and similarities in terms of how economics students do or do not deviate from law students, participants perceived law students as relatively more powerful and higher in
status than when the same facts were framed in terms of how law students deviate from economics students.

The order in which the groups appeared in the dependent measures had no effect on attributions of power, $F < 1$. There was, however, a significant interaction with norm condition, $F(1, 68) = 4.11, p < .05$, such that the predicted main effect for norm condition was significant only when the norm group appeared first (law norm: $M = 0.54, SD = 0.91$, economics norm: $M = -0.65, SD = 1.34$), $t(35) = 3.17, p < .01, d = 1.04$; when the comparison group appeared first, the means were in the same direction but did not differ significantly, $t < 1$.

Although we did not predict this interaction, it seems plausible in light of research showing that people tend to construct mental category norms around the group they encounter first (Hegarty & Chryssochou, 2005). When the comparison group appeared left of the line, that is, first for participants reading from left to right, this may have led to a greater inclusion of the comparison group in participants’ mental norm and thus to an amelioration of the effects of the comparison focus in the text.

**Attribution of agency and communion.** We tested our predictions regarding trait attributions with a mixed-measures ANOVA, treating attributions of agency and of communion as within-subjects factors. Overall, participants ascribed more agency to law graduates than to economics graduates, $F(1, 68) = 8.88, p < .01$, indicated by a mean value above zero, the midpoint of the line ($M = 0.69, SD = 1.11$), $t(75) = 5.41, p < .001, d = 0.62$; the attribution of communion did not differ significantly from the midpoint ($M = 0.12, SD = 0.99$), $t(75) = 1.07, p > .29$. The order in which the groups appeared had no effects, $Fs < 1.29, ps > .26$.

More importantly and in accord with our hypotheses, the interaction between norm condition and trait attribution was significant, $F(1, 68) = 4.81, p < .04$. As predicted, participants attributed more agency ($M = 0.84, SD = 1.20$) and less communion ($M = -0.04, SD = 0.88$) to law graduates in the law norm condition than in the economics norm condition (agency: $M = 0.55, SD = 1.02$; communion: $M = 0.28, SD = 1.07$). Although this interaction was significant, the simple effects were not, $ts(74) < 1.42, ps > .16$.

Thus, the comparison focus influenced not only how participants perceived the distribution of power between the two groups but also to what extent they ascribed power-related attributes to group members. When their group had been the norm, participants tended to see the typical law or economics student as relatively more agentic than the typical student of the respective other major; at the same time, participants tended to perceive the nonnormative group in a comparison as more communal than the norm group.

In summary, the results supported our predictions: Simply changing the direction of the comparison in a few statements about similarities and differences between two groups changed how participants perceived the distribution of power and status between these groups and also influenced to what extent they ascribed agentic and communal traits to typical group members.

Although the effects of the comparison focus on trait attributions were in line with our predictions, they were relatively modest, especially for trait attributions. The predicted interaction was statistically reliable, but the simple effects were not; moreover, the internal consistency of the agency scale was only moderate. This may be because of prior knowledge and stereotypes about the compared groups. We had selected these groups based on our assumption that they are stereotypically seen as equally agentic and communal. However, we found that participants perceived law students as more agentic than economics students. Such prior stereotypes probably affected participants’ responses and may have attenuated the effect of the comparison focus and of the accompanying ascription of power on the attribution of these traits.

**Experiment 2**

Experiment 2 tested our hypotheses with regard to fictitious groups about which participants had no prior knowledge and accordingly no stereotypes with regard to agency and communion. Inspired by Conway and others (1996), Experiment 2 used an anthropological text that compared the activities and traditions of two cultures allegedly living on a small South Pacific island. The text again systematically adopted one of the two possible comparison foci. Our hypotheses regarding perceptions of power and trait attributions remained the same as in Experiment 1.

**Method**

**Pretests.** We conducted two prestudies to select group names and activities that would imply comparable status and power. First, 44 introductory psychology students indicated how much they liked 10 different names. We selected 4 names that were liked equally well, $ts < 1$.

A second sample of 29 participants rated the six possible pairings of these four names. For each pair, participants indicated their guess of which of the two groups had more power and status on a 10 cm bipolar line. We counterbalanced between participants which of the two names appeared on which side of this line. Similarly, participants rated 22 different pairs of activities and cultural products with regard to the status and power that they implied (e.g., *fishing with a harpoon* vs. *fishing with a spear*; *cultivating yams* vs. *cultivating plantains*). We again counterbalanced which item appeared on which side of a bipolar line.

For the main experiment we selected the names *Vakuna* and *Maray*; participants had rated these names as implying equal status and power as indicated by a mean value not significantly different from zero ($M = 0.46, SD = 2.63$), $t < 1$, and order of presentation had no effect on participants’
Participating ratings of this name pair, \( t < 1 \). Similarly, we selected seven activities for which the means did not differ from zero, \( t < 1.54, ps > .13 \), and for which we found no order effects, \( t < 1.69, ps > .10 \).

**Participants and design.** We recruited 28 women and 21 men with an age range from 17 to 69 years \((M = 36.2, SD = 14.1)\) on public places in the shopping district of a medium-sized German city for participation in a study on “how people form impressions of groups they do not know.” The experimenter handed out surveys that randomly and blindly assigned participants to the conditions of a 2 (norm condition: Vakuna norm, Maray norm) by 2 (order in DVs: norm group first, comparison group first) design.

**Materials and procedure.** The survey first assessed demographic variables (age, gender, highest academic degree, field of occupation). The second page contained a fabricated anthropological text about the Vakuna and the Maray, two traditional cultures allegedly inhabiting a small South Pacific island.

**Manipulation of the comparison focus.** In the Vakuna norm condition, the text compared the Maray to the Vakuna, thus treating the Vakuna as the norm; in the Maray norm condition, the text compared the Vakuna to the Maray (e.g., “The Vakuna (Maray) differ from the Maray (Vakuna) in many ways, in cultural traditions as well as in agricultural and hunting practices. . . For example, the Vakuna (Maray) cultivate more yams, but fewer plantains than the Maray (Vakuna).”).

**Perceptions of power and status.** On the next page, participants indicated their impressions of the groups. They first answered six items referring to power and status (e.g., “Which group do you think has the higher prestige on the island?” “Imagine that there is a conflict between the groups over a piece of land. Which group would be more likely to initiate more yams, but fewer plantains than the Maray (Vakuna).”).

We tested our hypotheses with a mixed-measures ANOVA with norm condition, order in DVs, and participant gender as within-participants factors and agency and communion as between-participants factors. No significant main or interaction effects involving order of response options emerged, \( Fs < 1 \). As in Experiment 1, simply making one group the norm and the other group the effect to be explained in a few comparative statements was sufficient to cause a perception of the norm group as more powerful than the comparison group.

**Attribution of agency and communion.** We again measured participants’ responses on the bipolar lines as deviations from the midpoint in cm with one decimal place. Positive values indicate a higher ascription of the respective trait to the Vakuna; negative values indicate a higher ascription of the trait to the Maray.

We tested our hypotheses with a mixed-measures ANOVA with norm condition, order in DVs, and participant gender as between-participants factors and agency and communion as within-participants factors. No significant main or interaction effects involving order of response options emerged, \( Fs < 2.82, ps > .10 \). Trait content had a significant main effect, \( F(1, 37) = 9.57, p < .01 \); participants perceived the Vakuna as more agentic than the Maray, indicated by a positive mean value \((M = 0.95, SD = 2.56), t(44) = 2.49, p < .02 \), and the Maray as more communal than the Vakuna, indicated by a negative mean value \((M = -0.85, SD = 2.31), t(48) = -2.57, p < .02 \).

More importantly, the predicted trait content by norm condition interaction was significant, \( F(1, 37) = 7.77, p < .01 \) (see Figure 2). Participants ascribed more agency to the Vakuna in the Vakuna norm condition \((M = 2.00, SD = 2.01)\) than in the Maray norm condition \((M = -0.15, SD = 2.65)\), \( t(39) = 3.05, p < .01, d = 0.91 \), and ascribed more communion to the Vakuna in the Maray norm condition \((M = 0.14, SD = 2.44)\), than in the Vakuna norm condition \((M = -1.87, SD = 1.66), t(42) = 3.39, p < .01, d = 0.96 \).
This clearly supports H2 and H3. In the Vakuna norm condition, in which the Vakuna were seen as more powerful than the Maray, the Vakuna were seen as more agentic and less communal than in the condition where the Vakuna were seen as less powerful, that is, when the Maray were the norm.

**Mediational analyses.** We derived our hypotheses regarding agency and communion from (a) a predicted effect of the comparison focus on attributions of power and status and (b) previous research that has shown that power and status influence attributions of agency and communion. It is thus warranted to test whether attributions of power mediate the effect of norm condition on the attribution of these traits. We conducted mediational analyses following the Baron and Kenny (1986) steps.

**Mediational analyses: Agency.** Norm condition (0 = Maray norm, 1 = Vakuna norm) predicted the attribution of agency, $\beta = .42, p < .01$; it also predicted the ascription of power and status, $\beta = .42, p < .01$. When we included both norm condition and perceptions of power in the analysis, power reliably predicted agency, $\beta = .57, p < .001$, whereas the effect of norm condition was no longer significant, $\beta = .19, p > .14$; this drop was statistically reliable, Sobel $z = 2.54, p < .02$.

**Mediational analyses: Communion.** Norm condition also predicted the attribution of communion, $\beta = -.44, p < .01$. When we included both norm condition and perceptions of power in the analysis, power reliably predicted communion, $\beta = -.57, p < .001$, whereas the effect of norm condition was significantly reduced, $\beta = -.26, p < .06$, Sobel $z = 2.37, p < .02$.

In the absence of prior stereotypes about the two groups, the ascription of higher power and status to the Vakuna in the Vakuna norm condition compared to the Maray norm condition mediated the attribution of higher agency and partially mediated the lower attribution of communion to the Vakuna in this condition.

We also tested the reverse mediational models in which trait attributions mediate the effect of norm condition on perceptions of power. Although the prediction that who is compared to whom directly influences attributions of agency and communion does not seem straightforward, previous research has shown that a target’s agency influences respect toward this target (Wojciszke, Abele, & Baryla, 2009) and respect may be one indicator of status.

These reverse mediational models were also significant (agency: Sobel $z = 2.69, p < .01$, communion: Sobel $z = 2.68, p < .01$). Statistically, we cannot answer the question regarding the direction of the process with confidence. Since we based our hypotheses on the prediction that the comparison focus influences perceptions of power as well as on previous research that has shown that a group’s power and status influence attributions of agency and communion to this group (Conway et al., 1996; Fiske et al., 2002), we consider this direction of the effect to be more plausible. However, given the present findings it is also possible that the comparison focus influenced attributions of agency and communion, which then in turn influenced attributions of power and status. Our third experiment further examined these alternatives.

**Experiment 3**

The goals of Experiment 3 were threefold. First, we wanted to replicate the findings of the two previous studies. Second, we hoped to gain better insights into whether perceptions of power mediate attributions of agency and communion as our theoretical model suggests or whether the reverse mediation model may be more appropriate. Third, we wanted to explore whether the direction of the comparison similarly influenced attributions of agency and communion or whether previous findings with regard to one of the two dimensions might have been caused by a compensation effect. When people judge two different groups with regard to agency and communion (or competence and warmth) they often compensate for high attributions of traits pertaining to one of the dimensions to a first group by high attributions of traits pertaining to the other dimension to a second group (Judd, James-Hawkins, Yzerbyt, & Kashima, 2005).

Thus, who was compared to whom and the accompanying ascription of power may, for instance, have led participants in Experiments 1 and 2 to perceive the norm group as more agentic, whereas attributions of communion resulted from a subsequent compensation effect in which participants attributed higher communion to the comparison group. To further explore this possibility, Experiment 3 separated participants’ attributions of agency and communion to the two groups.

We did not separate participants’ ascriptions of power and status to the two groups since we assume that the way in which two groups are compared to each other will primarily influence perceptions of the power relations between these two groups; that is, participants will primarily use the comparison focus as one implicit source of information to infer which of the two groups is more powerful in a given intergroup context.

**Method**

**Participants and design.** We recruited 24 women, 22 men, and 3 participants who did not indicate gender (age $M = 38.7$ years, $SD = 12.2$) in the shopping districts of two German cities. Participants were randomly assigned to conditions in a 2 (norm condition: Vakuna norm, Maray norm) by 2 (order in DVs: norm group first, comparison group first) design.

**Materials and procedure.** Participants first read the same text as in Experiment 2 that either compared the Vakuna to the Maray or the Maray to the Vakuna. The next page of the survey contained six items referring to power and status ($\alpha = .84$). Except for one item (“Which group has higher influence on daily life on the island?” instead of “Which group does the king of the island belong to?”), these were the same as in Experiment 2. However, this time we did not force
participants to choose between the two groups. Instead, we used bipolar lines similar to those in Experiment 1 to ensure that participants had the option to rate both groups equally by marking the middle of the line. We counterbalanced between participants which group appeared on which side of the lines.

Next, participants indicated their impression of the groups with regard to agency and communion. Participants rated five agentic (active, assertive, independent, persistent, and dominant; \( \alpha = .85 \)) and five communal attributes (understanding, affectionate, cooperative, caring, and gentle; \( \alpha = .88 \)) separately for each group on a 7-point scale (1 = not at all to 7 = very much). Participants always rated the group first that had appeared to the left of the lines in the power measures.

Finally, participants provided the same demographic information as in Experiment 2.

### Results and Discussion

We excluded four participants with outlying scores on the power measure (more than 2 SDs above or below the mean in the respective condition).6

**Perceptions of power and status.** We measured the line judgments as deviations from the midpoint of the line in centimeters (with one decimal place); positive values indicate an attribution of higher power and status to the Vakuna. We tested our hypothesis by means of a 2 (Vakuna norm, Maray norm) by 2 (Vakuna first, Maray first) by 2 (participant gender) ANOVA.

In accord with H1, a main effect of norm condition, \( F(1, 38) = 5.97, p < .02 \), indicated that participants in the Vakuna norm condition perceived the Vakuna as more powerful and higher in status (\( M = 0.27, SD = 1.99 \)) than participants in the Maray norm condition (\( M = -1.11, SD = 1.14 \)), \( d = 0.85 \). Once again, participants inferred that the norm group in a comparative context was the more powerful one of two groups.

In addition, we found a marginally significant effect of the order in which the groups appeared in the DVs, \( F(1, 38) = 3.99, p < .06 \), that was qualified by a marginally significant interaction between norm condition and order, \( F(1, 38) = 3.38, p < .08 \). As in Experiment 1, although the means were always in the same direction, the effect of norm condition was more pronounced when the norm group appeared first (Vakuna norm: \( M = 0.96, SD = 1.51 \); Maray norm: \( M = -1.07, SD = 0.89 \)), \( t(23) = 3.96, p = .001, d = 1.64 \), than when it came second (Vakuna norm: \( M = -0.53, SD = 2.25 \); Maray norm: \( M = -1.15, SD = 1.28 \)), \( t < 1, d = 0.31 \).

**Attribution of agency and communion.** We recoded trait attributions into ratings of the norm group and the comparison group rather than ratings of the Vakuna and the Maray. We then submitted these ratings to a 2 (trait dimension: agency, communion) by 2 (group: norm group, comparison group) by 2 (norm condition: Vakuna norm, Maray norm) by 2 (order of ratings: Vakuna first, Maray first) by 2 (participant gender) ANOVA with repeated measures on the first two factors. This revealed several significant effects.

Overall, participants attributed more agency (\( M = 4.61, SD = 0.71 \)) than communion (\( M = 4.24, SD = 0.77 \), \( d = 0.50 \), to the groups, \( F(1, 37) = 12.12, p = .001 \). A significant content dimension by order interaction, \( F(1, 37) = 4.33, p < .05 \), indicated that this effect was stronger when the norm group was rated first (agency: \( M = 4.75, SD = 0.82 \); communion: \( M = 4.15, SD = 0.94 \)), \( t(21) = 3.56, p < .01, d = 0.68 \), compared to when it was rated second (agency: \( M = 4.47, SD = 0.57 \); communion: \( M = 4.33, SD = 0.57 \)), \( t(22) = 1.10, p < .29, d = 0.25 \).

Most importantly, there was a significant content dimension by group interaction, \( F(1, 37) = 4.66, p < .04 \). In accord with H2 participants attributed more agency to the norm group (\( M = 4.91, SD = 0.96 \)) than to the comparison group (\( M = 4.03, SD = 1.09 \)), \( t(44) = 3.74, p = .001, d = 0.86 \); in accord with H3 they attributed more communion to the comparison group (\( M = 4.47, SD = 1.04 \)) than to the norm group (\( M = 4.01, SD = 1.10 \)), \( t(44) = 2.08, p < .05, d = 0.43 \). Interestingly, the difference in attributions of agency and communion to the norm group was significant, \( t(46) = 3.74, p = .001, d = 0.86 \), whereas participants ascribed both types of traits to a comparable degree to the comparison group, \( t < 1, d = 0.13 \).

This predicted two-way interaction was qualified by a three-way interaction of content dimension, group, and order, \( F(1, 37) = 4.61, p < .04 \); the trait content by group interaction was significant only when the norm group was rated first, \( F(1, 18) = 13.24, p < .01 \), but not when the comparison group was rated first, \( F < 1 \) (see Figure 3).

Since it is possible that effects of the comparison focus diminished as participants went through their ratings of the...
groups, we also inspected ratings of the first-rated group only. The predicted content by order interaction was significant, \( F(1, 37) = 9.64, p < .01 \). Participants ascribed significantly more agency \((M = 5.19, SD = 0.85)\) and marginally less communion \((M = 3.78, SD = 1.05)\) to the norm group than to the comparison group \( (agency: M = 4.34, SD = 1.18; communion: M = 4.32, SD = 0.93, t(46) = 2.85 and = 1.92, p < .01 and .07, d = 0.83 and 0.54, respectively. Thus, the comparison focus simultaneously led to higher attributions of agency and to lower attributions of communion to the norm group than to the comparison group. There were no significant differences between the groups that participants rated second, \( F < 1 \).

**Mediation analyses.** To test whether the effect of the experimental condition on trait attributions was mediated by perceptions of power we again conducted mediational analyses following the Baron and Kenny (1986) steps.

**Agency.** Norm condition \((0 = Maray norm, 1 = Vakuna norm)\) predicted attributions of agency, \( \beta = .38, p = .01 \), as well as perceptions of power and status, \( \beta = .40, p < .01 \); power significantly predicted attributions of agency, \( \beta = .82, p < .001 \). When we included norm condition and power simultaneously, norm condition was no longer a significant predictor of attributions of agency, \( \beta = .01, ns \). The perception of the norm group as more powerful than the comparison group fully accounted for the higher attribution of agency to the norm group than to the comparison group, Sobel \( z = 2.83, p < .01 \).

Although the reverse mediation model was also significant, Sobel \( z = 2.60, p < .01 \), mediation in this model was only partial. Norm group remained a marginally significant predictor of power when agency was included in the model, \( \beta = .16, p < .09 \).

**Communion.** Norm condition also predicted attributions of communion, \( \beta = -.31, p < .04 \), as did power, \( \beta = -.74, p < .001 \). When we included norm condition and attributions of power simultaneously, the experimental condition was no longer a significant predictor of communion, \( \beta = .03, ns \). Perceptions of the norm group as relatively more powerful accounted for the lower attribution of communion to the norm group than to the comparison group, Sobel \( z = 2.74, p < .01 \).

In the reverse mediation model, norm condition remained a significant predictor of power when communion was included in the model, \( \beta = .25, p < .02 \), and the Sobel test was not significant, \( z = 1.68, p > .09 \).

Overall, the mediational models assuming a path from perceptions of power and status to the attribution of agency and communion seem to capture the processes leading to the present findings better than the respective alternatives.

Summarizing the results so far, Experiment 3 again supported our hypotheses: The way in which two groups were put in relation to each other, that is, the direction of the comparison between them influenced the way participants perceived the groups and constructed the power relations between them. Participants perceived the norm group as more powerful and higher in status than the comparison group, and—as suggested by the mediational analyses—these attributions of power and status led them to see the norm group as more agentic and less communal than the comparison group.

The order in which participants rated the groups was an important moderating factor (cf. Hegarty & Chryssochou, 2005). Effects on power inferences were more pronounced and effects on trait attributions were evident only when participants rated the norm group first. That the predicted effects on agency and communion emerged only in the conditions where we found the predicted effects on perceived power differences further supports our reasoning that participants’ trait attributions where based on their inferences regarding the distribution of power between the groups.

**Compensation effects.** To gage whether the comparison focus and the accompanying perceptions of power affected attributions of both agency and communion or whether they mostly affected attributions in one domain whereas effects in the other domain emerged because of compensation (Judd et al., 2005), we inspected individual-level correlations (see Table 1).

We found substantial compensatory effects across groups; the more agency (communion) participants ascribed to one group, the more communion (agency) they ascribed to the other group. We found no indication of compensation within the groups; attributions of agency and communion to the same group were independent of each other, \( ps \geq .10 \). Compensation between groups should mostly influence how participants rate the second group. However, we found effects for both agency and communion for the group that participants rated first, although the effect for communion was much smaller than the effect for agency and smaller than in Experiment 2.

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**Table 1. Correlations Among the Dependent Variables of Experiment 3**

<table>
<thead>
<tr>
<th>Variable</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Power norm group</td>
<td>.58***</td>
<td>- .54***</td>
<td>- .62***</td>
<td>.37**</td>
</tr>
<tr>
<td>2. Agency norm group</td>
<td>—</td>
<td>- .25</td>
<td>- .13</td>
<td>.76***</td>
</tr>
<tr>
<td>3. Communion norm group</td>
<td>—</td>
<td>.65***</td>
<td>—</td>
<td>.03</td>
</tr>
<tr>
<td>4. Agency comparison group</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5. Communion comparison group</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

\(*\*p < .01, ***p < .001, ***p < .001.\)
Thus, compensation cannot fully account for our findings with regard to attributions of communion (and certainly not for the effects on attributions of agency), although compensation was at work and very likely also contributed to the effects in Experiments 1 and 2.

**General Discussion**

Three experimental studies provided consistent support for the hypothesis that the way in which we communicate about intergroup similarities and differences has important implications for perceptions of the compared groups. Participants consistently perceived a group as relatively more powerful and higher in status when this group had represented the norm in an intergroup comparison than when it had represented the deviant from this norm. This effect emerged for real groups (Experiment 1) and for fictitious groups (Experiments 2 and 3). Moreover, not only were norm groups perceived as more powerful than comparison groups, but in addition they and their “typical members” were perceived as more agentic and as less communal. To our knowledge, this is the first set of studies to experimentally manipulate who is compared to whom and to assess how this affects perceptions of social groups.

Communication practices are an important tool by which people jointly contribute to the formation, maintenance, and transformation of social reality (Kashima et al., 2007). The effects we obtained illustrate how communication about intergroup differences, specifically systematic normativity effects in intergroup comparisons, may facilitate the reproduction and maintenance of culturally shared assumptions about social groups and help to reify the relationships of power between them: Speakers tend to place more powerful groups in the norm position (Miller et al., 1991; Pratto et al., 2007), and listeners use their implicit knowledge of communication practices to infer that the group occupying this position is more powerful. Thus, the listener is likely to construct the groups and their relation to each other in a way that is consistent with the speaker’s conception, even though—or maybe because—these ideas are not communicated explicitly (cf. Collins et al., 2009).

Since this communication of power differences between social groups occurs very subtly and on an implicit level, it is hard to recognize and thus unlikely to be critically evaluated and potentially corrected. In the long run, that is, in a line of multiple communicators and receivers, the respective construction of power differences between the groups will be reified as shared cultural knowledge and normative groups are likely to remain in power.

The findings regarding the attribution of agentic and communal traits extend the insights gained about the psychological consequences of systematic normativity effects in two important ways: First, who we compare to whom not only influences perceptions of the social standing of groups but also has implications for the perception of and expectations toward the typical member of the respective groups. Second, both the agentic and the communal traits we used were positive, which shows that the comparison focus does not simply induce something like a “norm equals better effect.” Systematically comparing one group to another, rather, had very specific effects on the perception of traits and characteristics that come with high versus low power and status.

The present findings also add to research investigating the relations between power and status and the two fundamental dimensions, which to date has focused on agency or competence to a greater extent than on communion or warmth (e.g., Fiske et al., 2002). The present data suggest that powerful groups are ascribed not only higher agency but also lower communion than less powerful groups, although agency may be linked more closely to power than communion.

**Limitations, Implications, and Directions for Further Research**

In the present experiments, we used groups that participants did not belong to and sometimes had never heard of before. We did this to exclude as many potentially confounding factors as possible to achieve high internal consistency in testing whether the comparison focus in intergroup comparisons can have the predicted effects or not. Now that we have established this effect, an important question for future research will be whether we compare to whom has similar effects for participants who are a member of one of the groups. This is especially relevant since for most important social categories such as gender, race, or sexuality, (almost) every person belongs to one group or another. We would predict similar—although potentially more complex—effects to occur among members of compared groups. However, this is an empirical question for future research.

An important implication of the present research concerns the practices of comparing groups in psychological science. Groups and intergroup relations are a core topic of social sciences in general and social psychology in particular. Thus, it is important to consider the ways in which the social sciences ask their questions and communicate their findings. A bit of general advice that is sometimes given in the context of survey methods research is to follow linguistic norms wherever possible and ask comparative questions in the same way that participants would spontaneously phrase them (Wänke, Schwarz, & Noelle-Neumann, 1995). In light of the present findings such strategies appear to be problematic in the context of intergroup similarities and differences. The direction of comparative questions can affect participants’ perceptions of compared groups and thus potentially (a) distort the respective findings and (b) contribute to the reproduction of biased perceptions of the groups and the power relations between them.

Even more important than how social scientists ask their questions is how they communicate their findings. In an
examination of how gender differences are reported in psychological research, Hegarty and Buechel (2006) found that when gender differences were reported in scientific psychology journals, female participants’ attributes were compared to male participants’ attributes more often than vice versa. Despite the fact that various scholars and researchers have pointed out the possible problems associated with treating one group as the norm and another group as deviation from that norm (e.g., Bem, 1993; Hegarty & Pratto, 2001; Miller et al., 1991), psychologists still tended to implicitly hold men as the standard and women as the effect to be explained (also see Ader & Johnson, 1994).

One reason for this persisting subtle androcentrism may be that critiques of scientific practices without empirical evidence indicating why they might be problematic often tend to be ignored or dismissed, even if there is some consensus that the criticism is valid (Eagly, 1995). With the present experiments we have started to provide such empirical evidence for problematic consequences of systematically rendering certain groups the norm and others deviants from that norm. We hope that knowing about these processes will—at least in the long run—help social scientists to avoid contributing to such subtle ways of reproducing or maintaining social injustice and to develop strategies to actively counteract them.

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Notes

1. Although power and status are not identical constructs (e.g., Fiske, 1993), they are strongly related conceptually and empirically (e.g., Lenski, 1966). Accordingly, we do not differentiate between power and status.
2. The questionnaire used the German words Juristen and BWLer, which colloquially refer to students and graduates of the respective majors alike.
3. We suspect that the relatively low internal consistency is because of the fact that there were no reverse-coded items and that participants hesitated to place their mark on the same side of the line for all six items.
4. In some of the studies participant gender had theoretically uninteresting main effects. Importantly, there were no interactions with norm condition. Thus, across all studies, we kept participant gender as a factor in the analyses but do not discuss theoretically irrelevant gender effects.
5. We also computed a mediation analysis using the difference between agency and communion as a dependent variable to accommodate the repeated measures design. Results also indicated significant mediation, Sobel $z = 2.53, p < .02$.
6. Inclusion of these participants leads to nonnormally distributed data. However, the main findings and their interpretation remain the same when the data are analyzed with all participants and nonparametric tests.

References


