

THE HUBRIS HYPOTHESIS: PEOPLE PARTICULARLY DISLIKE EXPLICITLY COMPARATIVE BRAGGERS FROM THEIR INGROUP

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Observers dislike explicit self-superiority claimants (asserting they are superior to others) relative to implicit self-superiority claimants (asserting they are good). The hubris hypothesis provides an explanation: Observers infer from an explicit (but not implicit) claim that the claimant views others, and therefore the observers, negatively. We provided a novel test of the hubris hypothesis by manipulating the claim's relevance to the observers' identity. A self-superiority claim may imply a particularly negative view of observers, if an ingroup claimant compares the self to the ingroup. We predicted that (1) observers would particularly dislike an explicit (vs. implicit) ingroup claimant, who compared the self to their ingroup, and (2) observers' dislike for an explicit ingroup claimant would be due to the inference that the claimant held a negative view of them. Two experiments, involving minimal ($N = 100$) and natural ($N = 114$) groups, supported the predictions.

Keywords: hubris hypothesis, self-presentation, self-superiority beliefs, self-enhancement, self

Individuals often engage in favorable self-presentation by boasting about their virtues and personality characteristics. Such bragging, however, can be ineffective (Sedikides, Gregg, & Hart, 2008; Steinmetz, Sezer, & Sedikides, 2017). The hubris hypothesis identifies a condition under which bragging backfires among observers (i.e., the audience of the bragging). This is when a bragger compares the self to

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others *explicitly*, and therefore comes across as holding a negative view not only of others in general, but also and crucially of the observers (Hoorens, Pandelaere, Oldersma, & Sedikides, 2012; Van Damme, Hoorens, & Sedikides, 2016). In this article, we provided a novel test of the hubris hypothesis by manipulating the relevance of claimant to the observers' identity—specifically whether an ingroup (outgroup) claimant compares the self to the ingroup (outgroup).

SELF-SUPERIORITY CLAIMS AND THE HUBRIS HYPOTHESIS

One may brag by making a comparative claim that directly asserts one's superiority to others (e.g., "I am more thoughtful than other people") or by making a seemingly non-comparative claim that focuses on the self (e.g., "I am thoughtful"). Our initial article on the hubris hypothesis labeled these claims "self-superiority claims" and "noncomparative positive claims," respectively (Hoorens et al., 2012). However, given that any self-evaluation reflects social comparison (Alicke, Zell, & Guenther, 2013; Biernat, 2005; Suls & Wheeler, 2000), both are truly self-superiority claims. Indeed, the two types of claims only differ in that the first acknowledges openly the comparison process, whereas the second does not. Accordingly, our subsequent publications on the hubris hypothesis switched to the labels "explicit self-superiority claims," for claims that bring to the fore the underlying comparison, and "implicit self-superiority claims," for claims that do not (Hoorens, Van Damme, Helweg-Larsen, & Sedikides, 2017; Van Damme, Deschrijver, Van Geert, & Hoorens, 2017; Van Damme et al., 2016). We adopt this terminology in the current article, using also "explicit claims (claimants, braggarts)" and "implicit claims (claimants, braggarts)," for short.

The explicit-implicit distinction is important, because observers dislike explicit relative to implicit self-superiority claimants. They do so even though they assume that the two types of claimants think equally well of their own selves (i.e., hold equally positive self-views; Hoorens et al., 2012; Van Damme et al., 2016, 2017). The hubris hypothesis explains the relative dislike for explicit self-superiority claimants by proposing that observers infer from an explicit (but not an implicit) claim that the claimant looks down on others and, by implication, on the observers. Stated otherwise, the hypothesis posits that observers' dislike of an explicit braggart is due to how the braggart appears to view others, and particularly the observers, rather than how the braggart views the self. This hypothesis has been empirically supported (Hoorens et al., 2012, 2017; Van Damme et al., 2016, 2017). Observers do infer that an explicit claimant views others, and in particular the observers, more negatively than an implicit claimant does. Further, these inferences mediate observers' dislike for the explicit claimant.

THE PRESENT RESEARCH

Prior work has tested the hubris hypothesis in a social void, that is, by examining how observers perceive a bragging stranger. Yet, manipulating the relevance of the

claim for the observers' identity offers a unique opportunity to test the hypothesis. As stated above, according to the hypothesis, observers of an explicit claim infer that the braggart holds a negative view of others, and consequently that the braggart views them negatively. It is the latter inference that contributes to the observers' dislike of the explicit claimant. Importantly, this inference can only occur to the extent that observers count themselves among those to whom the claimant is comparing—that is, when the claim is relevant to the observers' identity. This condition is met when observers perceive the claimant as an ingroup member comparing the self to the ingroup, but not when observers perceive the claimant as an outgroup member, thus comparing the self to an outgroup of the observers.

We proceeded to manipulate the relevance of the claim to the observers' identity in two experiments. In each experiment, a claimant from the observers' ingroup or outgroup made an explicit or implicit self-superiority claim. The explicit claimant always compared the self to his or her group. This group was either the observers' ingroup (if the claimant was an ingroup member) or the observer's outgroup (if the claimant was an outgroup member). We tested the general prediction that observers will dislike an explicit (vs. implicit) claimant when he or she is an ingroup member comparing the self to the ingroup, relative to an explicit (vs. implicit) outgroup member comparing the self to the outgroup. Observers will do so, because they will infer that the explicit (vs. implicit) ingroup (but not outgroup) claimant holds a negative view of them, all the while inferring that both the ingroup and outgroup explicit claimants hold a negative view of others (and a positive view of themselves; Van Damme et al., 2016; see also Kervyn, Bergsieker, & Fiske, 2012).

We wish to emphasize three aspects of our research. *First*, we used a minimal group setting in Experiment 1 (after Tajfel, Billig, Bundy, & Flament, 1971), and a natural group setting in Experiment 2. This practice followed recommendations to involve in one's research both minimal and natural groups (Ostrom & Sedikides, 1992). *Second*, in pursuit of generality, claimants expressed their self-superiority on the two fundamental dimensions of social cognition: communion/warmth (Experiment 1) and agency/competence (Experiment 2). *Third*, we used these dimensions to structure four additional measures (besides liking for the claimant): 1) inferences about the claimant's view of the self; 2) inferences about the claimant's view of others; 3) inferences about the claimant's view of themselves; and 4) impressions of the claimant. We did so not only because the dimensions are fundamental to social perception (Abele & Wojciszke, 2014, 2018), but also because we intended to clarify a prior finding on the hubris hypothesis where participants perceived the explicit (vs. implicit) claimant as less warm, but not as less competent (Van Damme et al., 2016, Experiment 2). This finding may be due either to the general primacy of warmth in judgments of others (Cuddy, Fiske, & Glick, 2008; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005) or the claim being on friendship—an attribute related but not synonymous to warmth.

The relevant literature has reported large effects on observers' responses to explicit versus implicit claims (Hoorens et al., 2012; Van Damme et al., 2016). For example, in the first publication on the topic (Hoorens et al., 2012), effect sizes varied from $\eta^2_{\text{part}} = .47$ (Experiment 2) to $\eta^2_{\text{part}} = .56$ (Experiment 1). We conducted a

power analysis capitalizing on these effect sizes (G^* power 3; Faul, Erdfelder, Lang, & Buchner, 2007). Specifically, we calculated the number of participants needed to reach a .95 probability of detecting a large effect (Cohen's $f = 0.40$) in a 2×2 between-subjects design with an additional 2-level within-subjects factor. The power calculation yielded sample sizes of 44 (for an effect size of .56) and 61 (for an effect size of .47). Given that we had no indication of how strong the potential effect of the new independent variable (i.e., group) would be, we targeted sample sizes of at least 100.

EXPERIMENT 1

In a variant of the minimal group paradigm (Tajfel et al., 1971), we first ostensibly assessed participants' personality cluster. Participants (i.e., observers) then read an explicit or implicit self-superiority claim where the claimant bragged about being a good friend, a social role related to warmth. The claimant purportedly belonged either to the same personality cluster as the participants (ingroup) or to a different cluster than them (outgroup). The explicit claimant always compared the self to others of the same personality cluster (i.e., ingroup members or outgroup members). Participants indicated their liking for the claimant, their impression of the claimant (on warmth and competence), and how they thought the claimant viewed the self, others, and them (also on warmth and competence).

We will next specify our predictions and reiterate them for each measure. Participants will infer a more negative view of others, but not a more positive view of the self, from an explicit than an implicit claim, regardless of claimant group membership. Participants will perceive the explicit (vs. implicit) claimant as lacking on warmth (given its primacy), but not on competence. Importantly, participants will infer a more negative view of them (mostly on warmth) from the explicit than the implicit claim, if the claimant compares the self to the ingroup, but not if the claimant compares the self to the outgroup. As such, participants will dislike the explicit ingroup claimant more than any other type of claimant.

METHOD

Participants and Design. We tested 100 undergraduates at a large European university (66 women; $M_{\text{age}} = 20.88$ years, $SD_{\text{age}} = 3.46$ years) in a 2 (claim: explicit, implicit) $\times 2$ (group: ingroup, outgroup) between-subjects design.

Materials and Procedure. Participants, in groups of 15–20, were seated at a desktop computer for an impression formation study via Google Forms. They learned of two personality clusters, A and B, and were invited to complete a (bogus) questionnaire to determine their cluster. The questionnaire comprised 11 open-ended statements, each with a stem (e.g., "I start working on assignments...") and two alternatives (e.g., "right before the deadline" vs. "long in advance"). After having filled out the questionnaire, all participants were informed that they belonged to Cluster A. Then, they proceeded to read a description of "Cluster A people," adapted from

research showing that individuals consider vague profiles as valid descriptions of their personality (i.e., Barnum effect; Forer, 1949). The description stated, for example, that Cluster A people “view themselves as independent thinkers” and “tend to be critical of themselves.” Afterwards, participants rated how characteristic the description was of them (1 = *not at all*, 5 = *very much*). We considered this rating an indicator of self-categorization as Cluster A member. Participants indeed self-categorized as members of Cluster A ($M = 4.15$, $SD = 0.67$), with the mean differing significantly from the scale midpoint (i.e., 3), $t(99) = 17.11$, $p < .001$.

Subsequently, participants learned that, as part of another experiment, some students had been involved in a discussion with members of their cluster, sharing experiences about belonging to Cluster A or B. One student had made a certain claim, which they were asked to read. They proceeded to read either an explicit or implicit self-superiority claim that had allegedly been made either by a Cluster A person (ingroup) or a Cluster B person (outgroup). The claimant made the following remarks (X stands for A or B; differences between the explicit and implicit claims appear in square brackets, with explicit claim being first):

[I consider myself a warmer person than other Cluster X people / As a Cluster X person I consider myself a warm person]. I'm [more] often there for other people... I'm [more] prepared to support them and to help them with their problems. I'm [more] spontaneous and [more] interested in what other people have to say. [If I compare myself to other Cluster X people / If I look at myself as a Cluster X person], I find myself [more] friendly and [more] pleasant to be around.

We measured participants' liking for the claimant (*claimant liking*) by asking, “How pleasant do you think this person is to have around?” and “How much would you like to be friends with this person?” (1 = *not at all*, 7 = *very much*; $\alpha = .90$). We embedded these two items in a 5-item questionnaire ostensibly assessing affiliation tendencies (Van Damme et al., 2017). We measured participants' impression of the claimant's personality (*claimant impression*) by asking them to rate the claimant on seven warmth-related traits (e.g., helpful; 1 = *not at all*, 7 = *very much*; $\alpha = .93$) and seven competence-related traits (e.g., ambitious; 1 = *not at all*, 7 = *very much*; $\alpha = .76$). Both sets of traits have been used in relevant research (Van Damme et al., 2016). Additionally, participants rated on the same two sets of traits how they believed the claimant viewed the self (*claimant self-view*; warmth $\alpha = .93$, competence $\alpha = .86$), how they believed the claimant viewed others (*claimant view of others*; warmth $\alpha = .96$, competence = $.94$), and how they believed the claimant would view them (*claimant view of observers*; warmth $\alpha = .94$, competence $\alpha = .91$).

RESULTS AND DISCUSSION

We analyzed claimant liking in a 2 (claim) \times 2 (group) between-subjects analysis of variance (ANOVA) to test main effects of claim and group. We analyzed claim-

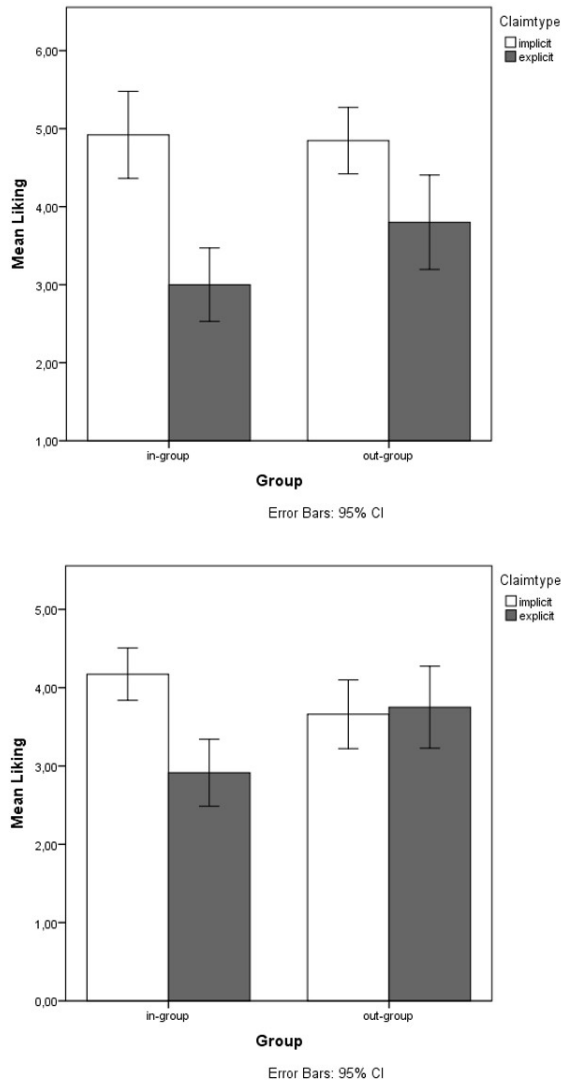


FIGURE 1. Claimant liking as a function of claim (implicit, explicit) and comparison group (ingroup, outgroup) for minimal groups (Experiment 1, top) and real-life groups (Experiment 2, bottom). Error bars denote 95% confidence intervals.

ant impression, claimant self-view, claimant view of others, and claimant view of observers in 2 (claim) \times 2 (group) \times 2 (dimension: warmth, competence) mixed-design ANOVAs, with dimension as a within-subjects variable. We performed contrast analyses to test the prediction that participants would infer a more negative view of them from an explicit ingroup claim than from the other three claims and dislike the explicit ingroup claimant more than the other three claimants (Rosenthal & Rosnow, 1985).

Claimant Liking. We predicted that participants would dislike an explicit claimant to a greater extent than an implicit claimant, particularly when the claimant was an ingroup member (Figure 1). Participants indeed disliked the explicit ($M =$

3.41, $SD = 1.35$) more than the implicit claimant ($M = 4.88$, $SD = 1.20$), claim main effect $F(1, 96) = 34.76$, $p < .001$, $\eta^2_{\text{part}} = .266$. Neither the Claim \times Group interaction, $F(1, 96) = 3.02$, $p = .086$, nor the group main effect was significant, $F(1, 96) = 2.08$, $p = .15$. However, the contrast between the explicit ingroup condition and the other three conditions was significant, $t(96) = 5.17$, $p < .001$, showing that participants particularly disliked an explicit ingroup member. This finding is consistent with the hubris hypothesis.

Claimant Impression. We predicted that participants would form a more unfavorable impression of the explicit than of the implicit claimant, particularly on warmth, and regardless of claimant group membership. Participants indeed reported a more unfavorable impression of the explicit ($M = 4.16$, $SD = 0.83$) than the implicit claimant ($M = 4.60$, $SD = 0.53$), claim main effect $F(1, 96) = 10.79$, $p = .001$, $\eta^2_{\text{part}} = .101$. This main effect was unqualified by the interaction with group, $F(1, 96) = 2.64$, $p = .108$. However, the main effect was qualified by the Claim \times Dimension interaction, $F(1, 96) = 31.25$, $p < .001$, $\eta^2_{\text{part}} = .246$. Participants formed the impression that the explicit claimant lacked in warmth ($M = 3.67$, $SD = 1.10$) compared to the implicit claimant ($M = 4.79$, $SD = 0.91$), $t(98) = 5.45$, $p < .001$, 95% CI of the difference [0.70, 1.50], but not that the explicit claimant comparatively lacked in competence ($M_{\text{explicit}} = 4.62$, $SD_{\text{explicit}} = 0.84$; $M_{\text{implicit}} = 4.41$, $SD_{\text{implicit}} = 0.73$), $t(98) = 1.31$, $p = .192$. The dimension main effect was also significant, $F(1, 96) = 5.71$, $p = .019$, $\eta^2_{\text{part}} = .056$. Overall, participants regarded the claimant as more competent ($M = 4.52$, $SD = 0.79$) than warm ($M = 4.25$, $SD = 1.15$). No other effects were significant, $F_s < 1.50$, $p_s > .224$. In all, consistent with the hubris hypothesis, and replicating earlier findings (Van Damme et al., 2016), observers formed a more unfavorable impression of the explicit than implicit claimant, especially on warmth. Extending earlier findings, observers did so independently of claimant group membership.

Claimant Self-View. Participants inferred that the claimant held a positive self-view, regardless of the claim being explicit ($M = 5.39$, $SD = 0.65$) or implicit ($M = 5.37$, $SD = 0.78$), claim $F(1, 96) = 0.01$, $p = 0.93$. However, the Claim \times Dimension interaction was significant, $F(1, 96) = 29.35$, $p < 0.001$, $\eta^2_{\text{part}} = .234$. Participants inferred a stronger self-view of competence from an explicit ($M = 5.31$, $SD = 0.79$) than an implicit claim ($M = 4.88$, $SD = 0.80$), $t(98) = 2.70$, $p = .008$, 95% CI of the difference [0.11, 0.75], but inferred a stronger self-view of warmth from an implicit ($M = 5.89$, $SD = 0.72$) than an explicit claim ($M = 5.43$, $SD = 0.97$), $t(98) = 2.67$, $p = .009$, 95% CI of the difference [0.12, 0.79]. The dimension main effect was also significant, $F(1, 96) = 47.43$, $p < .001$, $\eta^2_{\text{part}} = .331$. Overall, participants inferred that the claimant viewed the self as more warm ($M = 5.67$, $SD = 0.88$) than competent ($M = 5.09$, $SD = 0.82$). No other effect reached significance, $F_s < 1.03$, $p_s > .314$. Consistent with prior findings, observers inferred a positive claimant self-view, regardless of type of claim (Hoorens et al., 2012; Van Damme et al., 2016, 2017). Extending prior findings, observers inferred from an explicit (rather than implicit) claim a claimant self-view of competence, whereas they inferred from an implicit (rather than explicit) claim a claimant self-view of warmth.

Claimant View of Others. We predicted that participants would infer a more negative view of others from an explicit than from an implicit claim, regardless of claimant group membership, and mostly on warmth. Participants indeed inferred a more negative view of others from an explicit ($M = 3.68$, $SD = 1.09$) than an implicit claim ($M = 4.81$, $SD = 0.76$), claim main effect $F(1, 94) = 34.70$, $p < .001$, $\eta^2_{\text{part}} = .270$. Also as predicted, this main effect was qualified by the interaction with dimension, $F(1, 94) = 14.35$, $p < .001$, $\eta^2_{\text{part}} = .132$. Participants inferred a more negative view of others from an explicit than an implicit claimant on competence ($M_{\text{explicit}} = 3.57$, $SD_{\text{explicit}} = 1.16$; $M_{\text{implicit}} = 4.36$, $SD_{\text{implicit}} = 0.90$), $t(96) = 3.78$, $p < .001$, 95% CI of the difference [0.38, 1.21], and even more so on warmth ($M_{\text{explicit}} = 3.78$, $SD_{\text{explicit}} = 1.20$; $M_{\text{implicit}} = 5.26$, $SD_{\text{implicit}} = 0.88$), $t(96) = 6.94$, $p < .001$, 95% CI of the difference [1.05, 1.90]. In addition, we obtained a dimension main effect, $F(1, 96) = 37.88$, $p < .001$, $\eta^2_{\text{part}} = .287$. Participants inferred a claimant a view of others as more warm ($M = 4.52$, $SD = 1.28$) than competent ($M = 3.97$, $SD = 1.11$). No other effects were significant; Dimension \times Group $F(1, 94) = 3.74$, $p = .056$; all other F s < 0.11 , p s $> .743$. The results replicate earlier findings (Van Damme et al., 2016, 2017) in support of the hubris hypothesis, and extend them by showing that the pattern occurred regardless of claimant group membership.

Claimant View of Observers. We predicted that participants would infer a more negative view of observers from the explicit than the implicit ingroup (but not outgroup) claim, particularly on warmth. Indeed, participants inferred that the claimant had a more negative view of them when the claim was explicit ($M = 4.13$, $SD = 0.97$) than when it was implicit ($M = 4.58$, $SD = 0.87$), claim main effect $F(1, 96) = 6.09$, $p = .015$, $\eta^2_{\text{part}} = .060$. Crucially, this main effect was qualified by the interaction with group, $F(1, 96) = 4.87$, $p = .030$, $\eta^2_{\text{part}} = .048$. The contrast between the explicit-ingroup condition and the other conditions was significant, $t(96) = 2.81$, $p = .006$. Participants inferred a more negative claimant view of them from an explicit ($M = 3.89$, $SD = 0.86$) than an implicit ingroup claim ($M = 4.76$, $SD = 0.71$), $t(47) = 3.84$, $p < .001$, 95% CI [0.41, 1.32], but they did not infer a more negative view of them from an explicit ($M = 4.35$, $SD = 1.11$) than an implicit outgroup claim ($M = 4.40$, $SD = 0.99$), $t(49) = 0.18$, $p = .86$, 95% CI [-0.54, 0.64]. Neither the Claim \times Dimension interaction, $F(1, 96) = 0.69$, $p = .408$, nor the Claim \times Group \times Dimension interaction, $F(1, 96) = 2.11$, $p = .149$, was significant. We also obtained a dimension main effect, $F(1, 96) = 11.74$, $p = .001$, $\eta^2_{\text{part}} = .109$. Participants inferred that the claimant considered them more warm ($M = 4.53$, $SD = 1.08$) than competent ($M = 4.18$, $SD = 1.10$). No other effects were significant, F s < 0.36 , p s $> .552$.

As predicted by the hubris hypothesis, observers inferred a more negative view of them from an explicit than an implicit claim when the claimant was an ingroup (but not an outgroup) member. This pattern, as pertaining to the ingroup condition, is consistent with earlier research on the hubris hypothesis (Hoorens et al., 2012; Van Damme et al., 2016, 2017), except that the effect on warmth was not larger than on competence (Van Damme et al., 2016, 2017).

Moderated Mediation Analysis. Next, we tested our key prediction, namely, that the observers' dislike of an explicit (vs. implicit) self-superiority claimant is con-

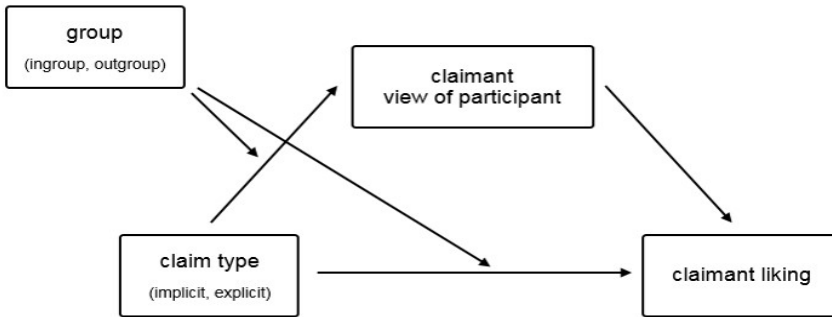


FIGURE 2. Moderated mediation model tested in both experiments.

tingent upon their inference that the claimant has a negative view of them, but only when the claimant is an ingroup (vs. an outgroup) member. We tested a moderated mediation model (Figure 2) using the Hayes (2013) PROCESS macro for SPSS (Model 8). Claimant liking was the dependent variable, claim was a dummy-coded independent variable (0 = *implicit*, 1 = *explicit*), claimant view of observers (warmth and competence combined) was a mediator, and group was a dummy-coded moderator (0 = *ingroup*, 1 = *outgroup*).

The index of moderated mediation differed from zero with an estimate of 0.68; 95% CI [0.09, 1.39]. The indirect effect of claim on claimant liking via claimant view of observers was significant in the ingroup condition, point estimate -0.72, 95% CI [-1.18, -0.34], but not in the outgroup condition, point estimate -0.04, 95% CI [-0.52, 0.47]. Participants' relative dislike for the ingroup explicit claimant was due to their inference that the claimant had a negative view of them.

EXPERIMENT 2

Experiment 2 tested the generality of Experiment 1 findings in two ways. *First*, it used natural rather than minimal groups. All participants were students of communication sciences at a large European university. The self-superiority claim was purportedly made from a student in the same knowledge field at the same university (ingroup) or from a student in another knowledge field at a rival university (outgroup). *Second*, the claimant in Experiment 2 asserted his or her self-superiority on competence rather than warmth. Otherwise, the design, measures, and data analytic strategy were identical to those of Experiment 1. The specific predictions were also identical to those in Experiment 1, except for the dimension of warmth. Given the general primacy of warmth in person perception (Cuddy et al., 2008; Judd et al., 2005), we predicted that participants would view the explicit claimant as lacking more in warmth than in competence as compared to the implicit claimant. The actual claim, however, was on competence; as such, we predicted an attenuation of the warmth-competence difference. Further, we predicted that the inferred positive claimant self-view and negative claimant view of others (in the

case of an explicit claim) and the inferred negative claimant view of observers (in the case of an explicit ingroup claim) would primarily rest on competence.

METHOD

Participants and Design. We tested 114 undergraduates (88 women; $M_{\text{age}} = 19.26$, $SD_{\text{age}} = 3.43$) in a 2 (claim: explicit, implicit) \times 2 (group: ingroup, outgroup) between-subjects design.

Materials and Procedure. Upon arrival, we used a three-step procedure to render salient the identity of participants (tested in groups of 18–20) as students of communication sciences. *First*, we ensured the presence of students from other fields in the laboratory by simultaneously running another experiment on these students. The experimenter flagged their presence and pointed out that they were taking part in different experiments. Under the pretext of avoiding confusion, communication sciences students were asked to take a seat on one side of the room, with their stations being marked with yellow-colored informed consent forms, whereas students from other fields were asked to take a seat at the other side of the room, with their stations being marked with white-colored informed consent forms. *Second*, participants reported their age, gender, and field on the first page of the questionnaire. *Third*, participants completed the 4-item identity subscale of the collective self-esteem scale (Luhtanen & Crocker, 1992), as applied to their field (e.g., “Being a student from my field is an important part of my self-image”; 1 = *not at all*, 5 = *very much*). The three-step procedure was effective. Participants thought of themselves as belonging to the group “communication sciences students” ($M = 3.34$, $SD = 0.76$), with the mean being significantly above the scale midpoint (i.e., 3), $t(113) = 4.83$, $p < .001$, 95% CI [0.20, 0.48].

Subsequently, participants learned that students had discussed how they coped with their training. Then, they read an explicit or implicit self-superiority claim that was allegedly made by a student from their field and their university (ingroup) or from another field and a rival university (outgroup). The claim read as follows, with differences between the explicit and implicit claims in square brackets (explicit claims first) and differences between the two claimants in round brackets:

I think I handle my study in (communication sciences at University X, geography at University Y) [better than others/well]. I prepare classes and exercises [more] thoroughly. I notice that I find it [easier than others/easy] to process large amounts of the course materials. If I [compare myself to other students from my discipline/look at myself] I may well say that I’m [more] organized and diligent and that I have [more/a lot of] insight.

Participants then proceeded to complete the same measures as in Experiment 1.

RESULTS AND DISCUSSION

As in Experiment 1, we analyzed claimant liking in a 2 (claim) \times 2 (group) between-subjects ANOVA, and we analyzed claimant impression, claimant self-view, claimant view of others, and claimant view of observers in 2 (claim) \times 2 (group) \times 2 (dimension) mixed-design ANOVAs, with dimension as a within-subjects variable. We again performed contrast analyses to test the prediction that participants would infer a more negative view of the observers from an explicit ingroup claim than from the other three claims and dislike the explicit ingroup claimant more than the other three claimants.

Claimant Liking. Participants again disliked the explicit ($M = 3.32$, $SD = 1.30$) more than the implicit claimant ($M = 3.92$, $SD = 1.03$), claim main effect $F(1, 110) = 7.60$, $p = .007$, $\eta^2_{\text{part}} = .065$. Critically, the predicted Claim \times Group interaction was significant, $F(1, 110) = 10.10$, $p = .013$, $\eta^2_{\text{part}} = .084$. Participants disliked the ingroup explicit claimant more than the other three types of claimants, $t(110) = 3.89$, $p < .001$. Also, when the claim was explicit, participants disliked the ingroup claimant more than the outgroup claimant $t(55) = 2.54$, $p = .014$, 95% CI of the difference [0.18, 1.50], whereas when the claim was implicit, they tended to like the ingroup claimant better than the outgroup claimant $t(55) = 1.91$, $p = .061$, 95% CI of the difference [-0.02, 1.04]. The group main effect was not significant, $F(1, 110) = 0.59$, $p = .45$. The results replicate those of Experiment 1.

Claimant Impression. Participants formed a more unfavorable impression of the explicit ($M = 4.43$, $SD = 0.78$) than the implicit claimant ($M = 4.78$, $SD = 0.72$), claim main effect $F(1, 110) = 6.16$, $p = .015$, $\eta^2_{\text{part}} = .053$. Overall, participants regarded the claimant as more competent ($M = 5.33$, $SD = 0.82$) than warm ($M = 3.88$, $SD = 0.91$), dimension main effect $F(1, 110) = 370.95$, $p < .001$, $\eta^2_{\text{part}} = .771$. Finally, participants tended to perceive the outgroup claimant ($M = 4.74$, $SD = 0.61$) more positively than the ingroup claimant ($M = 4.48$, $SD = 0.88$), group main effect $F(1, 110) = 3.41$, $p = .068$, $\eta^2_{\text{part}} = .030$. No other effects were significant, $F_s < 1.91$, $p_s > .16$. The results replicate those of Experiment 1, although the impact of warmth on impressions was cancelled out by the claim being on competence.

Claimant Self-View. Participants inferred that claimants held a positive self-view regardless of the self-superiority claim being explicit ($M = 5.38$, $SD = 0.86$) or implicit ($M = 5.54$, $SD = 0.76$), $F(1, 110) = 1.01$, $p = .32$. We again obtained a dimension main effect, $F(1, 110) = 168.70$, $p < .001$, $\eta^2_{\text{part}} = .605$. Participants inferred that the claimant's self-view was higher on competence ($M = 5.84$, $SD = 0.83$) than on warmth ($M = 5.08$, $SD = 0.91$). No other effect was significant, $F_s < 3.14$, $p_s > .079$. The results replicate those of Experiment 1 (i.e., dimension main effect, no claim main effect), except for the Claim \times Dimension interaction that was not significant.

Claimant View of Others. Participants inferred a more negative claimant view of others from an explicit ($M = 3.26$, $SD = 0.87$) than an implicit ($M = 3.74$, $SD = 0.72$) claim, $F(1, 110) = 9.85$, $p = .002$, $\eta^2_{\text{part}} = .082$. Claim interacted with dimension, $F(1, 110) = 8.33$, $p = .005$, $\eta^2_{\text{part}} = .070$. Participants inferred a more negative claimant

view of others from an explicit than from an implicit claim on the dimension of competence ($M_{\text{explicit}} = 2.93$, $SD_{\text{explicit}} = 1.01$; $M_{\text{implicit}} = 3.62$, $SD_{\text{implicit}} = 0.86$), $t(112) = 3.93$, $p < .001$, 95% CI of the difference [0.34, 1.03], but not of warmth ($M_{\text{explicit}} = 3.60$, $SD_{\text{explicit}} = 0.91$; $M_{\text{implicit}} = 3.86$, $SD_{\text{implicit}} = 0.78$), $t(112) = 1.65$, $p = .101$, 95% CI of the difference [-0.05, 0.58]. The dimension main effect was also significant, $F(1, 110) = 37.22$, $p < .001$, $\eta^2_{\text{part}} = .253$. Participants inferred a claimant view of others as more warm ($M = 3.73$, $SD = 0.85$) than competent ($M = 3.28$, $SD = 0.99$). No other effect reached significance, $F_s < 0.92$, $p_s > .918$. The results replicate those of Experiment 1. Further, as predicted, observers inferred from an explicit claim that the claimant views others as lacking on competence.

Claimant View of Observers. Participants inferred that the claimant had a more negative view of them from an explicit ($M = 4.17$, $SD = 0.89$) than an implicit claim ($M = 4.49$, $SD = 0.78$), claim main effect, $F(1, 110) = 4.04$, $p = .047$, $\eta^2_{\text{part}} = .035$. The predicted interaction of claim and group failed to reach significance, $F(1, 110) = 3.40$, $p = .068$, $\eta^2_{\text{part}} = .030$. However, the contrast analysis showed that participants inferred a more negative view of them from the explicit ingroup claim than from the other three types of claims combined, $t(110) = 3.17$, $p = .002$. Consistent with our prediction and Experiment 1, they inferred a more negative view of the observers from an explicit than from an implicit claim when the claimant was an ingroup member ($M_{\text{explicit}} = 3.91$, $SD_{\text{explicit}} = 0.99$; $M_{\text{implicit}} = 4.50$, $SD_{\text{implicit}} = 0.76$), $t(56) = 2.57$, $p = .013$, 95% CI [0.13, 1.06], but not when the claimant was an outgroup member ($M_{\text{explicit}} = 4.44$, $SD_{\text{explicit}} = 0.70$ vs. $M_{\text{implicit}} = 4.47$, $SD_{\text{implicit}} = 0.80$), $t(54) = 0.13$, $p = .90$, 95% CI [-0.38, 0.43]. In addition, we obtained a dimension main effect, $F(1, 110) = 78.24$, $p < .001$, $\eta^2_{\text{part}} = .416$. Participants inferred that the claimants viewed them as more warm ($M = 4.70$, $SD = 0.95$) than competent ($M = 3.96$, $SD = 0.97$). No other effect was significant, $F_s < 2.57$, $p_s > .111$. In all, although the Claim \times Group interaction was weaker than in Experiment 1, the results replicate those of Experiment 1, although they did not support the prediction that observers would infer from the explicit claim a view of the observers as lacking on competence.

Moderated Mediation Analysis. We tested the same model as in Experiment 1. The index of moderated mediation again differed from zero with a point estimate of 0.39, 95% CI [0.003, 0.86]. The indirect effect was significant in the ingroup condition, point estimate -0.85, 95% CI [-1.38, -0.32], but not in the outgroup condition, point estimate 0.11, 95% CI [-0.41, 0.63]. Again, participants disliked the ingroup (but not the outgroup) explicit claimant due to inferring that she or he viewed them negatively.

MINI META-ANALYSIS

Although the results align with the hubris hypothesis, they are somewhat inconsistent across experiments. We therefore opted for a mini meta-analysis. As both experiments involved a 2 (claim: explicit, implicit) \times 2 (group: ingroup, outgroup) design, we pooled the data and conducted ANOVAs identical to those of individual experiments, but adding the between-subjects factor Experiment (1, 2). For

brevity, we provide descriptive statistics only for effects that were absent from individual experiments. We only report significant effects (for all others: $F_s < 2.72$, $p_s > .10$).

Claimant Liking. The claim main effect was significant, $F(1, 206) = 40.06$, $p < .001$, $\eta^2_{\text{part}} = .16$. Yet, an interaction with experiment, $F(1, 206) = 7.56$, $p = .006$, $\eta^2_{\text{part}} = .04$, showed that the effect was stronger in Experiment 1 than Experiment 2. Participants expressed greater liking for the implicit claimant in Experiment 1 ($M = 4.88$, $SD = 1.20$) than Experiment 2 ($M = 3.92$, $SD = 1.03$), $t(106) = 4.48$, $p < .001$, 95% CI [0.21, 1.39], but did not express greater liking for the explicit claimant in Experiment 1 ($M = 3.41$, $SD = 1.35$) than Experiment 2 ($M = 3.32$, $SD = 1.30$), $t(104) = 0.32$, $p = .747$. The experiment main effect was also significant, $F(1, 206) = 10.03$, $p = .002$, $\eta^2_{\text{part}} = .05$. Overall, participants expressed greater liking for the claimant in Experiment 1 ($M = 4.16$, $SD = 1.47$) than Experiment 2 ($M = 3.63$, $SD = 1.21$).

The Claim \times Group interaction was significant, $F(1, 206) = 11.56$, $p = .001$, $\eta^2_{\text{part}} = .05$. Participants reported a markedly greater dislike for the explicit ($M = 2.95$, $SD = 1.11$) than the implicit ingroup claimant ($M = 4.52$, $SD = 1.17$), $t(105) = 7.09$, $p < .001$, 95% CI [1.13, 2.00], and only a marginally greater dislike for the explicit ($M = 3.77$, $SD = 1.39$) than the implicit outgroup claimant ($M = 4.23$, $SD = 1.24$), $t(105) = 1.80$, $p = .075$, 95% CI [-0.05, 0.96]. Importantly, the Claim \times Group interaction was unqualified by experiment, $F(1, 206) = 0.53$, $p = .469$. There was no indication, then, that the interaction differed between experiments.

The group main effect remained non-significant, $F(1, 206) = 2.59$, $p = .109$.

Claimant Impression. The claim main effect was significant, $F(1, 206) = 16.42$, $p < .001$, $\eta^2_{\text{part}} = .07$, as was the dimension main effect, $F(1, 206) = 163.11$, $p < .001$, $\eta^2_{\text{part}} = .44$. The Claim \times Dimension was also significant, $F(1, 206) = 31.05$, $p < .001$, $\eta^2_{\text{part}} = .13$. Participants saw the explicit claimant as less warm ($M = 3.67$, $SD = 0.98$) than the implicit claimant ($M = 4.43$, $SD = 0.96$), $t(212) = 5.72$, $p < .001$, 95% CI [-1.02, -0.50], but did not see the explicit claimant as less competent ($M = 4.94$, $SD = 0.90$) than the implicit claimant ($M = 4.96$, $SD = 0.91$), $t(212) = 0.20$, $p = .839$.

However, these effects were qualified by the Claim \times Dimension \times Experiment interaction, $F(1, 206) = 16.29$, $p < .001$, $\eta^2_{\text{part}} = .07$. Participants saw the implicit claimant in Experiment 1 as warmer than in Experiment 2 ($M_{\text{Exp1}} = 4.79$, $SD_{\text{Exp1}} = 0.91$; $M_{\text{Exp2}} = 4.10$, $SD_{\text{Exp2}} = 0.90$), $t(106) = 3.92$, $p < .001$, 95% CI [0.34, 1.03], but did not see the explicit claimant in the two experiments differently on warmth ($M_{\text{Exp1}} = 3.69$, $SD_{\text{Exp1}} = 1.10$; $M_{\text{Exp2}} = 3.65$, $SD_{\text{Exp2}} = 0.87$), $t(104) = 0.19$, $p = .856$. Participants saw the implicit claimant of Experiment 2 as more competent than the one in Experiment 1 ($M_{\text{Exp2}} = 5.45$, $SD_{\text{Exp2}} = 0.76$; $M_{\text{Exp1}} = 4.41$, $SD_{\text{Exp1}} = 0.73$), $t(106) = 7.22$, $p < .001$, 95% CI [0.13, 1.06], and also saw the explicit claimant of Experiment 2 as more competent than the one of Experiment 1 ($M_{\text{Exp2}} = 5.21$, $SD_{\text{Exp2}} = 0.87$; $M_{\text{Exp1}} = 4.62$, $SD_{\text{Exp1}} = 0.84$), $t(104) = 3.54$, $p = .001$, 95% CI [0.75, 1.33]. This interaction indicates that participants, to a certain extent, took the claim at face value. They viewed an implicit warmth claimant (Experiment 1) as warmer than an implicit competence claimant (Experiment 2), and they viewed both an explicit and an implicit

competence claimant (Experiment 2) as more competent than a warmth claimant (Experiment 1).

The experiment main effect, $F(1, 206) = 5.54, p = .019, \eta^2_{\text{part}} = .03$, and the Experiment \times Dimension interaction, $F(1, 206) = 75.04, p < .001, \eta^2_{\text{part}} = .27$, were significant. Participants formed a more favorable impression of the claimant in Experiment 2 ($M = 4.61, SD = 0.77$) than in Experiment 1 ($M = 4.38, SD = 0.72$), due to viewing the claimant as more competent in Experiment 2 ($M = 5.33, SD = 0.82$) than Experiment 1 ($M = 4.52, SD = 0.79$), $t(212) = 7.39, p < .001, 95\% \text{ CI } [0.60, 1.04]$. In contrast, participants saw the claimant as warmer in Experiment 1 ($M = 4.25, SD = 1.15$) than Experiment 2 ($M = 3.88, SD = 0.91$), $t(212) = 2.64, p = .009, 95\% \text{ CI } [0.09, 0.65]$.

Finally, the group main effect was significant: $F(1, 206) = 4.68, p = .032, \eta^2_{\text{part}} = .02$. Participants formed a less favorable impression of the ingroup claimant ($M = 4.40, SD = 0.83$) than the outgroup claimant ($M = 4.61, SD = 0.65$).

Claimant Self-View. The dimension main effect was significant, $F(1, 206) = 4.19, p = .042, \eta^2_{\text{part}} = .02$, as was the Dimension \times Claim interaction, $F(1, 206) = 26.67, p < .001, \eta^2_{\text{part}} = .12$. Participants inferred a weaker warmth self-view from an explicit ($M = 5.18, SD = 1.00$) than from an implicit claim ($M = 5.52, SD = 0.86$), $t(212) = 2.67, p = .008, 95\% \text{ CI } [-0.58, -0.09]$, but they did not differ on their inferences pertaining to a competence self-view ($M_{\text{explicit}} = 5.57, SD_{\text{explicit}} = 0.87$ vs. $M_{\text{implicit}} = 5.41, SD_{\text{implicit}} = 0.93$), $t(212) = 1.33, p = .186, 95\% \text{ CI } [-0.08, 0.41]$. The Claim \times Dimension \times Group interaction was not significant, $F(1, 206) = 1.57, p = .211$.

The Dimension \times Experiment interaction was significant, $F(1, 206) = 179.85, p < .001, \eta^2_{\text{part}} = .47$, however, and so was the Claim \times Dimension \times Experiment interaction, $F(1, 206) = 14.25, p < .001, \eta^2_{\text{part}} = .07$. Participants inferred a stronger warmth self-view in Experiment 1 than Experiment 2, particularly when the claim was implicit ($M_{\text{Exp2}} = 5.89, SD_{\text{Exp2}} = 0.72$; $M_{\text{Exp1}} = 5.19, SD_{\text{Exp1}} = 0.83$), $t(106) = 4.64, p < .001, 95\% \text{ CI } [0.40, 1.00]$, but also when the claim was explicit ($M_{\text{Exp2}} = 5.43, SD_{\text{Exp2}} = 0.97$; $M_{\text{Exp1}} = 4.96, SD_{\text{Exp1}} = 0.98$), $t(104) = 2.49, p = .014, 95\% \text{ CI } [0.09, 0.85]$. Further, participants inferred a stronger competence self-view in Experiment 2 than Experiment 1, particularly when the claim was implicit ($M_{\text{Exp2}} = 5.88, SD_{\text{Exp2}} = 0.78$; $M_{\text{Exp1}} = 4.88, SD_{\text{Exp1}} = 0.80$), $t(106) = 6.61, p < .001, 95\% \text{ CI } [0.70, 1.30]$, but also when it was explicit ($M_{\text{Exp2}} = 5.80, SD_{\text{Exp2}} = 0.88$; $M_{\text{Exp1}} = 5.31, SD_{\text{Exp1}} = 0.79$), $t(104) = 2.98, p < .001, 95\% \text{ CI } [0.16, 0.81]$. Participants seemed to believe that the claimants expressed an earnestly held self-view, particularly when the claim was implicit. They believed that a warmth claimant (Experiment 1) viewed the self as warmer than a competence claimant (Experiment 2), and that a competence claimant (Experiment 2) viewed the self as more competent than warmth claimant (Experiment 1).

Claimant View of Others. We obtained significant main effects of claim, $F(1, 204) = 44.19, p < .001, \eta^2_{\text{part}} = .18$, and experiment, $F(1, 204) = 37.43, p < .001, \eta^2_{\text{part}} = .16$. Both were qualified by the Claim \times Experiment interaction, $F(1, 204) = 7.34, p = .007, \eta^2_{\text{part}} = .04$. Participants inferred a claimant view of others that was more warm and competent (combined) in Experiment 1 ($M = 4.24, SD = 1.09$) than Experiment 2 ($M = 3.50, SD = 0.83$). Also, they inferred a more positive claimant

view of others from the implicit claim in Experiment 1 ($M = 4.81$, $SD = 0.76$) than Experiment 2 ($M = 3.74$, $SD = 0.72$), $t(104) = 7.41$, $p < .001$, 95% CI [0.78, 1.35]. To a lesser extent, they inferred a more positive claimant view of others from the explicit claim in Experiment 1 ($M = 3.68$, $SD = 1.09$) than Experiment 2 ($M = 3.26$, $SD = 0.87$), $t(104) = 2.17$, $p = .033$, 95% CI [0.03, 0.79].

Finally, we obtained a Claim \times Dimension \times Experiment interaction, $F(1, 204) = 23.13$, $p < .001$, $\eta^2_{\text{part}} = .10$. In Experiment 1, the claim effect was mostly evident on warmth, whereas in Experiment 2, it was mostly evident on competence. Overall, then, participants inferred a negative claimant view of others on the corresponding dimension of the claim. The main effect of dimension was significant, $F(1, 204) = 75.89$, $p < .001$, $\eta^2_{\text{part}} = .27$.

Claimant View of Observers. The main effect of claim was significant, $F(1, 204) = 10.29$, $p = .002$, $\eta^2_{\text{part}} = .05$, as was the main effect of dimension, $F(1, 204) = 69.20$, $p < .001$, $\eta^2_{\text{part}} = .25$. The critical Claim \times Group interaction was also significant, $F(1, 204) = 8.40$, $p = .004$, $\eta^2_{\text{part}} = .04$. When the claimant was an ingroup member, participants inferred a more negative view of the observers from the explicit ($M = 3.90$, $SD = 0.92$) than from the implicit claim ($M = 4.62$, $SD = 0.74$), $t(105) = 4.45$, $p < .001$, 95% CI [0.40, 1.04]. However, when the claimant was an outgroup member, they did not infer a more negative view of the observers from the explicit ($M = 4.40$, $SD = 0.91$) than from the implicit claim ($M = 4.44$, $SD = 0.89$), $t(105) = 0.21$, $p = .831$.

We also found a Dimension \times Experiment interaction, $F(1, 204) = 8.72$, $p = .004$, $\eta^2_{\text{part}} = .04$, and Claim \times Dimension \times Group \times Experiment interaction, $F(1, 204) = 4.51$, $p = .035$, $\eta^2_{\text{part}} = .02$. We broke this four-way interaction down by examining explicit-implicit differences across group, dimension, and experiment. In neither experiment did a claim effect occur on warmth or competence in the outgroup conditions, $ts < 0.77$; $ps > .448$. In contrast, claim effects did occur in the ingroup conditions of both experiments. In Experiment 1, it was stronger on warmth ($M_{\text{Im}} = 5.08$, $SD_{\text{Im}} = 0.82$; $M_{\text{Ex}} = 3.98$, $SD_{\text{Ex}} = 0.92$), $t(47) = 4.42$, $p < .001$, 95% CI [0.60, 1.60], than on competence ($M_{\text{Im}} = 4.44$, $SD_{\text{Im}} = 0.91$; $M_{\text{Ex}} = 3.80$, $SD_{\text{Ex}} = 1.00$), $t(47) = 2.32$, $p = .025$, 95% CI [0.08, 1.19]. In Experiment 2, it was stronger on competence ($M_{\text{Im}} = 4.22$, $SD_{\text{Im}} = 0.93$; $M_{\text{Ex}} = 3.52$, $SD_{\text{Ex}} = 1.01$), $t(56) = 2.74$, $p = .008$, 95% CI [0.19, 1.21], than on warmth ($M_{\text{Im}} = 4.79$, $SD_{\text{Im}} = 0.83$; $M_{\text{Ex}} = 4.30$, $SD_{\text{Ex}} = 1.10$), $t(56) = 1.91$, $p = .061$, 95% CI [-0.02, 1.01]. To summarize, participants inferred a more negative claimant view of the observers in the explicit ingroup condition than in the implicit ingroup condition on the dimension of claim.

GENERAL DISCUSSION

We tested the prediction that observers would particularly dislike explicit (vs. implicit) ingroup claimants who compare the self to the observers' ingroup (as compared to outgroup claimants who compared the self to the observers' outgroup). We derived this prediction from the hubris hypothesis, which states that observers dislike an explicit claimant, because they infer that he or she views others, and therefore the observers, negatively. When the claimant is an ingroup member, thus

comparing the self to the ingroup, observers may more readily infer from the assumed negative view of others that the claimant also views them negatively. The hypothesis therefore states that, whereas observers infer a more negative view of others from (and so form a more negative impression of) explicit than implicit claimants, they only infer a more negative claimant view of themselves from explicit ingroup than outgroup claimants, disliking explicit ingroup claimants more.

Consistent with these predictions, observers disliked an explicit (relative to an implicit) claimant if the claimant was an ingroup member, but not (Experiment 2) or to a lesser extent (Experiment 1) if the claimant was an outgroup member. This pattern occurred even though observers inferred a more negative claimant view of others (particularly on the dimension of the claim) and formed a more negative impression of the explicit than implicit claimant (Experiments 1–2). In contrast, the dislike for the explicit (vs. implicit) claimant went hand in hand with a more unfavorable impression of the explicit (vs. implicit) claimant when the claimant was an ingroup rather than an outgroup member, particularly on the dimension of claim (Experiments 1–2).

The greater dislike for an explicit than implicit ingroup claimant occurred independently of whether the claim was on warmth (Experiment 1) or competence (Experiment 2). The inference that the explicit (than implicit) ingroup claimant holds a negative view of observers also occurred independently of whether the claim was on warmth or competence. However, if an explicit ingroup claimant bragged about a warmth-related role, observers inferred that the claimant viewed them as particularly lacking in warmth. Likewise, if an explicit ingroup claimant bragged about a competence-related role, observers inferred that the claimant viewed them as particularly lacking in competence. In both cases, though, inferring that the claimant perceived them negatively conduced to a dislike for the claimant. Overall, then, the findings were consistent with predictions derived from the hubris hypothesis.

At first sight, our findings may appear to contradict those of Anderson, Brion, Moore, and Kennedy (2012) and Kenny, Anderson, and Moore (2013), who reported that greater overconfidence (i.e., self-superiority beliefs in the domain of competence) entailed higher perceived competence and interpersonal status. The contradiction, though, is more apparent than real. Both Anderson and colleagues and Kennedy and colleagues examined effects of self-superiority *beliefs*, whereas we examined effects of self-superiority *claims*. For example, Anderson and colleagues (Study 4) showed that greater overconfidence predicted higher status and perceived competence in the absence of more explicit confidence statements. Moreover, Anderson and colleagues and Kennedy and colleagues studied effects *on status*, whereas we studied effects *on liking*. Even then, our meta-analysis produced a finding consistent with theirs: Participants inferred greater competence from the competence bragger (Experiment 2) and lesser competence from the warmth bragger (Experiment 1).

On the other hand, our findings may seem to resemble those of Anderson, Ames, and Gosling (2008) and Anderson, Srivastava, Beer, Spataro, and Chatman (2006), who reported that overestimating one's status in a group entailed dislike from

other group members. Again, however, their independent variable differed from ours. They focused on effects of perceptions (in this case, of interpersonal status) rather than of claims. In addition, our findings may appear to parallel those of DeMarco and Newheiser (2018). In a study on interpersonal reactions to insults, these authors reported that observers wanted to confront or avoid a claimant who had insulted their ingroup more so than one who had insulted an outgroup. However, the critical difference between our research and theirs is that claimants in our studies did not explicitly insult any group. Rather than showing how observers respond to an insult, we demonstrated that they may respond to an explicitly comparative bragging *as if* it were an insult.

IMPLICATIONS

The hubris hypothesis states, and our findings document, that observers do not respond to a self-superiority claimant based on how the claimant seems to view the self, but rather based on their inferences of how the claimant views them. Our research thus reveals an understudied type of egocentrism that may exist side-by-side with well-documented phenomena such as the egocentric interpretation of trait labels (Dunning & Hayes, 1996), the one-sided focus on information about the self (Kruger, 1999), egocentric anchoring in perspective-taking tasks (Epley, Keysar, Van Boven, & Gilovich, 2004), and the attribution of one's behaviors and preferences to others (Ross, Greene, & House, 1977). Some of these and similar phenomena have been described as manifestations of *cognitive* egocentrism. We propose that the hubris hypothesis implies, just like many other self-enhancement phenomena, a type of egocentrism that is both cognitive and motivational (Hoorens, 1993; Sedikides & Alicke, 2012; Sedikides & Alicke, 2019). Observers' inferences of how an explicit claimant views them might be considered "cognitive," but their use of those inferences to respond to the claimant might be considered "motivated."

One well-documented finding in research on communication is that observers, when asked to interpret a comparative statement, focus on its target (the individual, group, or object being compared to another individual, group, or object) rather than on its referent (the individual, group, or object that the target is being compared to). For example, when observers judge an individual (target) in comparison to other individuals (referent), their response reflects what they know about the target rather than what they know about the referent (Chambers & Windschitl, 2004; Radzevick & Moore, 2013). When observers explain why or how a target differs from a referent, they also elaborate on the characteristics of the target rather than the referent (Hegarty & Bruckmüller, 2013). Applying this pattern to comparatively worded self-descriptions, one would predict that observers' responses to explicit self-superiority claims of the form, "I am better than others," would depend on their inferences about the claimant's self-view. Yet, the hubris hypothesis posits, and our findings indicate, a reversal of this pattern. Observers' responses to explicit self-other comparisons depended on how they believed the

claimant viewed an implicit referent (i.e., the claimant's inferred view of the observers) rather than on how they believed the claimant viewed the target (i.e., the claimant's self). It seems, then, that observers focus on what comparisons reveal about how claimants view referents rather than targets, when a comparative statement involves a claimant placing the self (target) above others (referent) through an explicit self-superiority claim.

LIMITATIONS

According to the hubris hypothesis, it is the extent to which the claimant's referent group is an ingroup for observers, rather than the claimant's membership in the observers' ingroup, that determines observers' responses. One limitation of our work is that we manipulated claimant group membership along with the referent group. That is, when the claimant belonged to the observers' ingroup, she or he compared the self with that ingroup, and when the claimant belonged to the observers' outgroup, she or he compared the self with that outgroup. We did not include claims where an outgroup claimant compared the self with the observer's ingroup or where an ingroup claimant compared the self with the observer's outgroup, because we anticipated that such claims would have limited credibility. Future research may do well to revisit this issue in an attempt to construct credible claims.

Our research was about situations where participants felt comfortable with their group membership. The results might have been different if participants had found themselves in a group to which they would rather not belong. Consider, for example, the scenario of a patient suffering from a disease and learning that another patient has claimed that she or he handles the disease better than other patients. If the patient feels counted among "other patients," she or he may express dislike for the bragger, but if she or he identifies little with other patients, she or he may view the claimant as comparing with an outgroup. In that case, they may harbor a less negative, or even a somewhat positive, sentiment towards the claimant. Future work might address this issue.

CONCLUSION

People's reactions to self-superiority claims depend not only on whether claimants emphasize or de-emphasize the underlying social comparative process (i.e., whether the claim is explicit or implicit), but also on the referent to whom the claimant compares. Observers particularly dislike an explicit (relative to an implicit) claimant, if she or he belongs to their group (i.e., the referent). As per the hubris hypothesis, claimants may declare that they are better than "them," but not that they are better than "us."

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