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► **To cite this version:**

Valentin Weber, Hugo Mercier. When do people dislike self-enhancers?. *Array*, 2024, 31 (1), pp.27-48.  
10.1075/pc.00039.web . hal-04773248

**HAL Id: hal-04773248**

**<https://hal.science/hal-04773248v1>**

Submitted on 8 Nov 2024

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When do people dislike self-enhancers? When they claim to be superior

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Accepted at *Pragmatics and Cognition*

*Abstract.* Self-enhancing statements can provide useful information. Why do we resent those who make them? We suggest that the resentment comes from a broader claim of superiority that self-enhancing statements can imply. In three experiments, we compared one condition, designed such that the self-enhancing claim would be perceived as a claim of superiority, to three conditions providing different contextual reasons for why the self-enhancing claim might not be a claim of superiority. In those conditions the self-enhancing claim is either called for, addressed to someone who performs better than the self-enhancer, or addressed to someone who doesn't compete in the domain mentioned of the self-enhancing claim. The results show that participants disliked the self-enhancer more and were more likely to deem the self-enhancing claim to be a brag when the self-enhancing claim was manipulated to be a claim of superiority.

*Keywords.* Self-enhancement; Bragging; Dominance; Reputation management; Condescension.

## 1. Introduction

Bragging is quasi-universally reviled. Studies have shown that boastful self-promotion often backfires (Holtgraves & Srull 1989), and that braggards are generally viewed as less likeable (Godfrey et al. 1986). Research has also documented the negative effects of specific types of bragging, such as bragging about prosocial behavior (Berman et al. 2015), humblebragging (a type of bragging whereby the brag is concealed by a complaint; Sezer et al. 2018), or bragging online (Scott & Ravenscroft 2017). In fact, ingratiators aiming to increase their likeability appear to be better off downplaying their own achievements rather than bragging about them. When talking with a self-denigrator, we overtly show our sympathy, but when we are confronted with a braggard, we privately develop unfavorable attitudes of them (Powers & Zuroff 1988). While it's not clear whether highly modest or moderately modest behavior is more beneficial, boastful behavior is consistently least effective in making oneself likeable (Wosinka et al. 1996, see also, in the context of dating, Van Tongeren et al. 2014).

Bragging is, for most or all of us, so viscerally annoying that asking why bragging is annoying might seem bizarre. However, if we focus on bragging involving factual information, the question is, in fact, not trivial. It is very important for humans to recognize who is competent (or incompetent) and in what domain (see, e.g. Mercier 2020; Barclay 2013; Fiske, Cuddy, & Glick 2006). We pay close attention to how others perform, we are able to figure out who performs best even when the data is very noisy (Stibbard-Hawkes et al. 2018), and even infants use information about speaker competence to decide whom to trust (Clément et al. 2004; for a review see Harris 2012). Information about someone performing well in a given domain should therefore be very relevant. In general, we reward--by thinking better of them at least (Altay & Mercier 2020; Boyer & Parren 2015)--people who provide us relevant information, such as practical tips, or information about potential dangers. Yet it seems that even when someone

brags about something that is true, and that we were unaware of—and thus provides relevant information—we are annoyed instead of being thankful for the extra information.

With the exception of the Hubris Hypothesis (Hoorens et al. 2012), to which our account is somewhat related, most theories of bragging do not help answer the question of why bragging is perceived so negatively. Some accounts of bragging describe it in a neutral manner, such as Berman et al. (2015, p. 91), which define bragging as “informing others of a positive, self-relevant behavior or trait.” Similarly, other studies implicitly define bragging as the sharing of self-enhancing information (e.g., Chen et al. 2020; Sezer et al. 2018; Tal-Or 2010; Valsesia & Watson 2020). These accounts do not attempt to explain why bragging is so strongly disliked.

Similarly, research showing that accuracy affects the extent to which a self-enhancing claim is disliked do not directly address our question. It has been shown that more accurate self-enhancing claims lead to less dislike towards the self-enhancer (Schlenker & Leary 1982; O’Mara et al. 2019). However, the fact that more accurate self-enhancing claims are perceived more favorably does not explain why even accurate self-enhancing claims are disliked more than modest self-claims.

Alfano and Robinson (2014) provide an analysis of bragging as a speech act. They argue that bragging consists both of an assertion about the self-enhancer as well as the intention to leave the addressee impressed. However, we often enjoy being impressed: so-called “competence porn,” in which protagonists are exceptionally skilled and intelligent constitutes a large share of our cultural consumption (see, e.g., Dartnell 2014). Moreover, some statements are perceived as brags even when they are not impressive, as when someone brags about being lucky (Scopelliti et al. 2015). It thus seems unlikely that bragging would be so strongly disliked only because it leaves the audience impressed.

Bragging has also been defined as an attempt to be perceived as more competent, by contrast with being perceived as warmer (i.e. nicer, kinder) (Chaudhry & Loewenstein 2019). However, since one can be both warm and competent, it’s not clear why bragging would

automatically lead to being perceived as less warm—indeed, the argument above suggests that we should perceive as warmer people who provide us with useful information. Chaudhry and Loewenstein’s (2019) account, thus, starts from the observation that bragging leads to being perceived as being less warm, but it does not explain why that should be the case.

Our hypothesis is that bragging is disliked because it consists of an implicit claim of superiority vis à vis the audience of the brag. Crucially, braggards would be disliked because the claim of superiority would extend beyond the narrow area of the brag: someone who says they are better at, say, chess, would mostly be disliked if that claim was construed to imply that they were superior to the audience more generally, that they had a superior status (for other subtle effects of pragmatics, see e.g., Forceville 2023; Li 2022). Now, and likely throughout their evolutionary history, humans have developed a wide array of methods for displaying, or attempting to display, their dominance, from shows of physical strength (Hawley 1999) to more subtle means (such as one’s tone of voice, Ridgeway 1987, or knowingly making offensive statements to show one can get away with it De Araujo et al. 2020). However, such attempts at claiming superiority are often resented by others and, when possible, resisted (on the many ways in which people attempt to resist even well-entrenched dominance hierarchies, see, Scott 2008). A particularly salient illustration is noted by Boehm in his account of how members of small-scale egalitarian societies deal with self-enhancers (Boehm 1999). In such societies, any attempt by a group member to gain a superior status is resisted. An important part of this rejection of dominant status consists of mocking self-enhancers (Boehm 1999, pp. 45, 115). Even when someone’s brag is accurate—for instance, they point out that they’ve had a very successful hunt—they are ridiculed and their achievements are belittled (Lee 1979, pp. 244-246).

These ethnographic accounts suggest that self-enhancement is perceived negatively—as bragging—when it represents a claim to superior status. Moreover, in typical cases, the explicit content of the brag is accurate, while the claim to superior status remains implicit, making it harder to rebuke (and thus potentially more infuriating). This would be why mockery

and ridicule are often the reactions of the audience, since they target the implicit, and problematic, claim to superior status.

A closely related account of bragging is the hubris hypothesis (Hoorens et al. 2012) which has a slightly different explanation for why braggards are disliked: According to this hypothesis, the braggard is disliked when the braggard views not only the addressee of the brag to be inferior, but the rest of the audience (the participants, in an experimental setting) as well. The hubris hypothesis has been supported by a series of experiments showing for instance that people dislike braggards who make explicit self-superiority claims (e.g. "I am better than you at x") more than braggards who make implicit self-superiority claims (e.g. "I am good at x"). While closely related, our account and the hubris hypothesis differ in some subtle ways. First, in our account, observers dislike braggards who claim to be superior to a given audience, even if they have no grounds for thinking that the braggard thinks they are superior to them (the observers). Second, in our account what matters is not so much whether the braggard makes the claim of self-superiority explicit, but whether claiming superiority in a given area can be construed as a broader claim to a superior status. As a result, someone who tells us "I am better than you at x" should mostly be disliked if that claim is understood as meaning that they have a superior status more generally. Despite these differences, our account could be classified within the same family of theories as the hubris hypothesis.

One possible mechanism through which people might realize that brags are claims of superiority is that the brags affect their self-esteem. According to the sociometer hypothesis (Leary 1990; Leary et al. 1995), self-esteem tracks the degree to which one feels valued as a relational partner. Brags might thus lower one's self-esteem, which is unpleasant, and lead to a negative perception of the braggard. Crucially, this should only happen when the brag is intended as claiming a superior status. Moreover, according to our account, we should also dislike braggards even if (i) they brag to others or (ii) their brag does not succeed in lowering our self-esteem (i.e. it was a failed attempt at claiming a superior status). For instance, in our

vignettes, participants are not the target of the brag, thus their own self-esteem should be preserved, and yet we predict that they will dislike the braggard.

Several existing results can be interpreted as supporting the hypothesis that self-enhancement is disliked when it represents an implicit claim of superiority. First, a study found that self-enhancers are viewed more favorably when making specific rather than general competence claims (Holtgraves & Srull 1989). Arguably, the more specific a competence claim, the less likely it is to be understood as an implicit claim of superiority (compare for instance “I’m very smart” and “I’m very good at programming with R”). Second, another study observed that self-enhancing was perceived less negatively when it occurred in response to a question (Tal-Or 2010). If someone is specifically queried about their skills, even a self-enhancing answer should be interpreted (if accurate at least) as an honest attempt at answering the question, rather than a claim of superiority. Third, self-enhancing is perceived more negatively when it occurs in a cooperative rather than competitive a context (Kruger & Gilovich 1999), which make sense if claims of superiority appear more out of place in a cooperative rather than a competitive context. Fourth, self-enhancing statements about one’s luck—which can be perceived as bragging (Scopelliti et al. 2015)—are ill-suited to impress an audience about one’s skills, but might still convey a sense of superiority, if they suggest the self-enhancer is now better off than the addressee. Fifth, lack of modesty (e.g. being forthright about one’s accomplishments) is more frowned upon when the audience is made of peers (who might be made to feel inferior) than of superiors (for whom that is less likely to happen) (Watling & Banerjee 2007; Wosinska et al. 1996).

The evidence gathered in support of the hubris hypothesis can also be interpreted as supporting our closely related yet distinct account. Hoorens and colleagues (2012) showed that socially comparative brags (e.g., “I am better in x than others”) are viewed more negatively than temporally comparative brags (e.g., “I am better in x than I used to be”) or socially comparative brags with a disclaimer (e.g., “I don’t mean to say that I am better in x than others, but...”).

Follow-up studies (Van Damme, et al. 2016; Van Damme et al. 2017; Hoorens et al. 2019) similarly found that explicit self-superiority claims (“I am better than others”) are more disliked than implicit self-superiority claims (“I am good”). We would argue that the socially comparative brag and the explicit self-superiority claims are more likely to be construed as a claim to a higher status, which is why they lead to more negative reactions. The present experiments differ from these past studies in key ways. First, the participants never have any particular reason to feel included in the brag. Second, the self-enhancing claims are the same across conditions, manipulating instead the context so that the self-enhancing claims are more or less likely to be construed as broader claims of superior status.

We constructed our stimuli by looking for conditions under which a self-enhancing claim should or should not be construed as a claim to superior status. First, in line with Alfano and Robinson (2014) we reasoned that a self-enhancing claim should not be construed as a claim to superior status if the speaker has a sound reason for making the claim other than self-enhancement. For instance, the speaker could utter a self-enhancing statement in response to a specific query. In the Specific Query condition, the protagonist says (for example) that she’s great at chess to someone who is specifically looking for good chess players to recruit. This context is reminiscent of the question context used by Tal-Or (2010).

Second, a self-enhancing claim should not be construed as a claim to superior status if the speaker seemingly could not believe themselves to be better than the addressee, such as when making a self-enhancing claim towards someone who is clearly superior to the speaker in the domain of the self-enhancing claim. In the Low Status condition, the self-enhancing statement is addressed to someone who clearly has a much higher status (in the area of the self-enhancing statement), and it thus can hardly be construed as a claim of superior status vis-à-vis that individual—as when a junior chess player mentions her accomplishments to one of the top chess players in the world. While such a large status difference is not common in real-world situations, it is suitable for this condition as it ensures that the self-enhancing claim is not



construed as a claim of superiority over the addressee. Here our account differs from that of Alfano and Robinson (2014), since in this condition the self-enhancer might still be deemed to want to impress the higher-status individual, but not to claim a higher status than them.

Third, a self-enhancing claim should not be construed as a claim to superior status if the speaker believes that the addressee does not care about the domain of the self-enhancing statement. In the No Competition condition, the self-enhancing statement bears on a topic that the addressee has just acknowledged not to care about, and it should thus also be less likely to be construed as an implicit claim of superiority—as when someone brags about their chess performance to someone who does not care one bit about chess.

In the Superior Status condition, there is no apparent justifying or excusing condition that explains why the self-enhancing statement was made, the self-enhancing statement is addressed to someone who the speaker knows to be inferior, and the self-enhancing statement bears on a topic that the speaker knows that the addressee cares about. As a result, we expect that in this condition, the self-enhancing statement will be interpreted as a claim to higher status.

We first hypothesized that the self-enhancer would be ascribed a higher intent to appear superior in the Superior Status condition than in each of the other three conditions. This can be construed as a manipulation check, since if that condition did not obtain, we could not properly test our main hypothesis.

H1: Participants in the Superior Status condition will ascribe higher intent to appear superior to the self-enhancer than participants in the other conditions.

H1(a): Participants in the Superior Status condition will ascribe higher intent to appear superior to the self-enhancer than participants in the No Competition condition.

H1(b): Participants in the Superior Status condition will ascribe higher intent to appear superior to the self-enhancer than participants in the Low Status condition.

H1(c): Participants in the Superior Status condition will ascribe higher intent to appear superior to the self-enhancer than participants in the Specific Query condition.

Assuming H1 is verified, we make the main prediction that the self-enhancer is perceived as less likeable in the Superior Status condition than in each of the other three conditions:

H2: Participants in the Superior Status condition will find the self-enhancer less likeable than participants in the other conditions.

H2(a): Participants in the Superior Status condition will find the self-enhancer less likeable than participants in the No Competition condition.

H2(b): Participants in the Superior Status condition will find the self-enhancer less likeable than participants in the Low Status condition.

H2(c): Participants in the Superior Status condition will find the self-enhancer less likeable than participants in the Specific Query condition.

Finally, we also tested participants' semantic intuitions about the semantics of the word 'bragging' by asking whether they thought it could be used to describe the protagonists' behavior in each condition.

## **2. Overview of Experiments**

For the present study, one pilot experiment (reported in the electronic supplementary material [ESM]) and three experiments were conducted. They all had similar designs with only differences in the specific content of the vignettes. In Experiment 1, the self-enhancing

statement concerned either tennis, gymnastics, writing, or science. In Experiment 2 the vignettes were identical to those of Experiment 1, except for one condition. Experiment 3 was identical to Experiment 2, except that the fields concerned with the self-enhancing statements were changed to chess, computer science, and poker.

We set an a priori target sample size of  $N = 200$  ( $n = 50$  per condition) for each of the three studies. Based on an alpha of .05 and the desired level of power of at least .80, a power analysis for the one-way ANOVA (using G\*Power 3.1) revealed that at least 180 participants are required for each study, assuming a medium effect size. Although no other studies have tested our hypothesis yet, we based our estimate of a medium effect size on similar studies investigating bragging behavior (e.g., Scopelliti et al., 2015, report small/medium to large effect sizes). All experiments (sample size, exclusion criteria, hypotheses, statistical analyses) were pre-registered (Experiment 1: <https://osf.io/qd5kc/>; 2: <https://osf.io/dg7nt/>; 3: <https://osf.io/awp8v/>; data available at: <https://osf.io/gxfzj/>). The study departed from the pre-registration by using different labels for the conditions, for clarity: The Superior Status condition was initially labeled “Strong Bragging condition”, the Low Status condition was labeled “Upwards Bragging condition”, the Specific Query condition was labeled “No Bragging condition”, and the No Competition condition was labeled “Unimportant Bragging condition”. Further, for the present study we omitted a mediation analysis that we ultimately deemed unsuitable to test our theory, but which is still included in the supplementary materials.

### **3. Experiment 1**

#### **3.1. Participants**

Participants (final  $N = 198$ , mean age = 33.83 years,  $SD = 11.72$ ; 68.2% female, 31.8% male, excludes two participants who failed the attention check) were recruited via Prolific Academic and were rewarded with £0.38 as compensation for completing the questionnaire.

### 3.2. Design

Perceived intent to appear superior was manipulated between participants. Each participant only read and answered questions about one vignette, after they had passed an attention check, and before they answered demographic questions.

### 3.3. Materials

For each condition, eight vignettes were used, differing with regards to the topic of the brag (tennis, writing, science, gymnastics), and the gender of the self-enhancer (and the gender of the individual to whom the self-enhancing statement is addressed, which was always the same as that of the self-enhancer). Hence, we used 32 versions of the story in total, eight versions per each experimental condition.

In the Specific Query condition, participants read a story about a college lecturer looking for a talented student to join the college tennis (writing, science, gymnastics) team, and the self-enhancer claims achievement in tennis (writing, science, gymnastics) as a response to the lecturer's request. In the Low Status condition, the story was about a professional tennis player (writer, scientist, gymnast), to whom is addressed a self-enhancing statement by a younger and less experienced tennis player (writer, scientist, gymnast). In the No Competition condition, participants read a story about a professional chess player to whom is addressed a self-enhancing statement by someone in another field (tennis, writing, science, gymnastics). In the Superior Status condition, the self-enhancer describes achievements in tennis (writing, science, gymnastics) that are higher than the addressee's achievements (unlike in the Low Status condition) and the addressee of the self-enhancing statement cares about the discipline of the self-enhancing statement (unlike in the No Competition condition). Crucially, the self-enhancing

statements were always the same, only the context in which they were offered varied, as can be seen in the examples below (all the vignettes can be found in ESM).

To illustrate, we provide the vignettes for the four conditions with the tennis/male stories:  
Specific Query Condition:

Peter looked at his tennis racket. He was sitting at his favourite spot in the college courtyard, waiting. As a lecturer at a local college, Peter had volunteered to build up the college's tennis team for the next big tournaments. How would he make sure that his college would get a good result or maybe even win? Right before he went to the courtyard, Peter had made an announcement to the entire school, asking for any student tennis players to come forward and find him in the courtyard. He had even brought his own tennis racket so that new students could easily recognize him. In case someone wanted to join the college tennis team, Peter announced, they could just come to the courtyard, where Peter would be sitting for the next hour. Hopefully there would even be a strong player among the college students willing to join.

Lost in thought, Peter heard footsteps. When he looked up, he saw a young man approaching him. This man was a tennis player, who was new to the university. He had heard the announcement and was interested in playing for the university team. Peter noticed how the man glanced over the tennis racket. "Do you know how to play tennis?" Peter asked, hoping he might be able to recruit good players. The young man simply said: "In high school, I won several local tournaments.

Low Status Condition:

Peter looked at his tennis racket. He was sitting at his favourite spot in a park next to the tennis court. Tennis was his career, his life. After years of training, Peter had managed to become one of the top tennis players in the world, reaching the finals of several grand slam tournaments. Right before he went to the park Peter just finished an intense match against

another top tennis player. Now, spending time in the park was a good way of recovering from the stress of the match.

Lost in thought, Peter heard footsteps. When he looked up, he saw a young man approaching him. This man was also a tennis player, who was new in town. Although few people knew him yet, he had looked up the various players in the area, and knew who Peter was, and what his tennis level was. Peter noticed how the man glanced over the tennis racket. “Do you know how to play tennis?” Peter asked. The young man simply said: “In high school, I won several local tournaments.”

#### No Competition Condition :

Peter looked at the tennis racket. He was sitting at his favourite spot in the park, where Peter found a tennis racket that someone had forgotten. Peter didn't really care about tennis: he barely knew how to play, and fiddled with the tennis racket as a distraction to ponder some problem he was facing in his career as a professional chess player.

Lost in thought, Peter heard footsteps. When he looked up, he saw a young man approaching him. This man was also a chess player, who was new in town. Although few people knew him yet, he had looked up the various chess players in the area, and knew who Peter was, and what his chess level was. Peter noticed how the man glanced over the tennis racket. “Do you know how to play tennis?” Peter asked to strike up a conversation. The young man simply said: “In high school, I won several local tournaments.”

#### Superior Status Condition:

Peter looked at his tennis racket. He was sitting at his favourite spot in the park, pondering how he could advance his tennis level. Although only moderately talented Peter loved tennis. Every day he practiced in order to get better, but it took a long while until his efforts paid off. But Peter kept his tail up – after all, tennis was an important aspect of his life. His

best performance was when he had finished second place in a local high school tournament.

Lost in thought, Peter heard footsteps. When he looked up, he saw a young man approaching him. This man was also a tennis player, who was new in town. Although few people knew him yet, he had looked up the various players in the area, and knew who Peter was, and what his tennis level was. Peter noticed how the man glanced over the tennis racket. "Do you know how to play tennis?" Peter asked. The young man simply said: "In high school, I won several local tournaments."

After reading the story, participants were asked four questions about the self-enhancer:

- (1) "What is your impression of the young man [woman] Peter [Judith] is talking to?" (1 = Very likeable, 7 = Very dislikeable)
- (2) "To what extent do you think the young man [woman] considers himself [herself] superior to Peter [Judith]?" (1 = Not at all, 7 = Very much)
- (3) "To what extent do you think the young man [woman] is being condescending towards Peter [Judith]?" (1 = Not at all, 7 = Very much)
- (4) "Do you think the young man [woman] was bragging when he [she] said that he [she] had won several competitions?" (1 = Not bragging at all, 7 = Completely bragging).

The second and third questions were averaged to create a single index indicating the perceived intent to appear superior. Across all experiments, the second and third items were strongly correlated ( $r = .70$ ).

### 3.4. Results and discussion

An ANOVA revealed significant overall effects of condition on dislikeability ( $F(3, 194) = 9.557, p < .001, \eta^2 = 0.129$ ), intent to appear superior ( $F(3, 194) = 9.626, p < .001, \eta^2 = 0.130$ ), and perceived bragging ( $F(3, 194) = 5.41, p < .001, \eta^2 = 0.077$ ). A Levene's test for homogeneity of variance indicated that the assumption was not violated in any of the analyses. In order to

account for the violation of normality of residuals, we conducted a Kruskal-Wallis test to verify the effects of condition on each dependent variable, all of which were significant ( $p < 0.002$ ). Dunnett t correction was used for multiple comparisons.

First, the manipulation was successful (H1): participants in the Superior Status condition ( $M = 4.62$ ,  $SD = 1.38$ , 95% CI [4.23, 5.02]) found the self-enhancer to have a higher intent to appear superior than participants in the Low Status condition ( $M = 3.20$ ,  $SD = 1.45$ ,  $p < .001$ , 95% CI [2.80, 3.60]), in the No Competition condition ( $M = 3.55$ ,  $SD = 1.62$ ,  $p < .001$ , 95% CI [3.08, 4.02]), and in the Specific Query condition ( $M = 3.43$ ,  $SD = 1.26$ ,  $p < .001$ , 95% CI [3.07, 3.80]).

Testing H2, participants in the Superior Status condition ( $M = 4.16$ ,  $SD = 1.1$ , 95% CI [3.85, 4.48]) rated the self-enhancer as more dislikeable than participants in the No Competition condition ( $M = 3.17$ ,  $SD = 1.04$ ,  $p < .001$ , 95% CI [2.87, 3.47]), Specific Query condition ( $M = 3.16$ ,  $SD = 1.09$ ,  $p < .001$ , 95% CI [2.85, 3.48]), but the difference with the Low Status condition ( $M = 3.69$ ,  $SD = 1.11$ ,  $p = .079$ , 95% CI [3.38, 4.00]) was not significant.

Finally, participants in the Superior Status condition ( $M = 4.78$ ,  $SD = 1.56$ , 95% CI [4.33, 5.22]) rated the self-enhancer as more bragging than participants in the Low Status condition ( $M = 3.69$ ,  $SD = 1.83$ ,  $p < .005$ , 95% CI [3.18, 4.20]), in the No Competition condition ( $M = 3.79$ ,  $SD = 1.88$ ,  $p = .014$ , 95% CI [3.25, 4.34]), and in the Specific Query condition ( $M = 3.51$ ,  $SD = 1.54$ ,  $p < .001$ , 95% CI [3.07, 3.95]).

The results broadly supported our predictions. Validating the manipulation, participants deemed the self-enhancer in the Superior Status condition to have a higher intent to appear superior than in all the other conditions, they judged the self-enhancing statement to be more likely to be a brag in that condition than in all the other, and they judged the self-enhancer to be less likeable in that condition than in all the others (although the comparison with the Low Status condition was only marginally significant). A potential explanation for the weakness of the comparison with the Low Status condition could be that, in that condition, participants perceived



the self-enhancer as attempting to ingratiate with an individual of superior status, a behavior that might also be disliked. We address this potential issue in Experiment 2. Finally, participants were more likely to ascribe the term 'bragging' to the protagonists' behavior in the Superior Status condition, mirroring the effects on likeability and intent to appear superior.

## **4. Experiment 2**

Experiment 2 is a replication of Experiment 1, with one minor change: the Low Status condition was modified so that it would be less likely that the self-enhancer could be perceived as wanting to ingratiate with their interlocutor.

### **4.1. Participants**

Participants (final  $N = 199$ , mean age = 34.06 years,  $SD = 13.32$ ; 68.3% female, 31.2% male, 0.5% other / preferred not to say, excludes one participant who failed the attention check) were recruited via Prolific Academic and were rewarded with £0.38 as compensation for completing the questionnaire.

### **4.2. Design**

The experimental design was identical to Experiment 1.

### **4.3. Materials**

The materials were identical to those of Experiment 1, except that The Low Status vignette was modified such that the individual with superior status (who is at the receiving end of the self-enhancing statement) is close to retirement. In the previous experiment the self-enhancer might ingratiate in order to benefit from the influence of the superior status individual. In the new Low Status Vignette, this potential motivation of the self-enhancer is much less plausible, since the

individual with superior status retires soon, and will no longer be influential in the discipline that the self-enhancer cares about.

#### 4.4. Results and discussion

An ANOVA revealed significant overall effects of condition on dislikeability ( $F(3, 195) = 4.658, p = .004, \eta^2 = 0.067$ ), intent to appear superior ( $F(3, 195) = 9.953, p < .001, \eta^2 = 0.133$ ), and perceived bragging ( $F(3, 195) = 6.118, p < .001, \eta^2 = 0.086$ ). Again, assumption checks showed that homogeneity of variance was not violated in any of the analyses, and the Kruskal-Wallis test confirmed that all effects were significant ( $p = 0.005$  for dislikeability;  $p < 0.001$  for intent to appear superior and perceived bragging). Multiple comparisons were corrected using Dunnett t.

First, the manipulation was successful (H1): participants in the Superior Status condition ( $M = 4.67, SD = 1.39, 95\% CI [4.27, 5.07]$ ) found the self-enhancer to have a higher intent to appear superior than participants in the Low Status condition ( $M = 3.19, SD = 1.47, p < .001, 95\% CI [2.77, 3.61]$ ), the No Competition condition ( $M = 3.50, SD = 1.63, p < .001, 95\% CI [3.04, 4.00]$ ), and the Specific Query condition ( $M = 3.31, SD = 1.57, p < .001, 95\% CI [2.86, 3.76]$ ).

Testing H2, participants in the Superior Status condition ( $M = 3.84, SD = 1.23, 95\% CI [3.48, 4.19]$ ) viewed the self-enhancer as significantly more dislikeable than participants in the No Competition condition ( $M = 3.14, SD = 1.23, p = .008, 95\% CI [2.79, 3.49]$ ) and in the Specific Query condition ( $M = 3.08, SD = 1.09, p = .004, 95\% CI [2.77, 3.39]$ ), but the Superior Status condition did not differ significantly from the Low Status condition ( $M = 3.52, SD = 1.05, p < .381, 95\% CI [3.22, 3.82]$ ).

Finally, a similar pattern could be seen concerning perceived bragging. In the Superior Status condition ( $M = 4.57, SD = 1.66, 95\% CI [4.10, 5.05]$ ), participants evaluated the self-enhancer as significantly more bragging than the Low Status condition ( $M = 3.38, SD = 1.47, p = .002, 95\% CI [2.96, 3.80]$ ), the No Competition condition ( $M = 3.70, SD = 1.74, p = .031, 95\%$

CI [3.21, 4.19]), and the Specific Query condition ( $M = 3.24$ ,  $SD = 1.89$ ,  $p < .001$ , 95% CI [2.70, 3.78]).

The results from Experiment 2 replicated those of Experiment 1, supporting our predictions, except in the Low Status condition, whose protagonist was not seen as being significantly less likeable than the protagonist in the Superior Status condition.

## 5. Experiment 3

To test the robustness of the results obtained in Experiments 1 and 2, we conducted a replication in which the fields in which the protagonist was bragging were changed to chess, computer science, and poker.

### 5.1. Participants

Participants (final  $N = 200$ , mean age = 35.01 years,  $SD = 12.72$ ; 63% female, 35.5% male, 1.5% other / preferred not to say) were recruited via Prolific Academic and were rewarded with £0.38 as compensation for completing the questionnaire.

### 5.2. Design

The design of experiment 3 was identical to Experiments 1 and 2.

### 5.3. Materials

The materials were similar to those of Experiment 2, except that the domain of expertise of the self-enhancer was modified (all vignettes in ESM).

### 5.4. Results and discussion

An ANOVA revealed significant overall effects of condition on dislikeability ( $F(3, 196) = 4.094, p = .008, \eta^2 = 0.590$ ), intent to appear superior ( $F(3, 196) = 10.54, p < .001, \eta^2 = 0.139$ ), and perceived bragging ( $F(3, 196) = 9.198, p < .001, \eta^2 = 0.123$ ). As in the previous ANOVAs, Levene's test showed that homogeneity of variance was not violated in any of the analyses. As in the previous experiments, we accounted for violations of normality by conducting a Kruskal-Wallis test, which confirmed the effects of condition on the dependent variables ( $p = 0.011$  for dislikeability;  $p < 0.001$  for intent to appear superior and perceived bragging). Multiple comparisons were corrected using Dunnett t.

First, the manipulation was successful (H1): Participants in the Superior Status condition ( $M = 4.43, SD = 1.33, 95\% CI [4.04, 4.81]$ ) found the self-enhancer to have a higher intent to appear superior than the Low Status condition ( $M = 2.94, SD = 1.52, p < .001, 95\% CI [2.51, 3.37]$ ), the No Competition condition ( $M = 3.18, SD = 1.28, p < .001, 95\% CI [2.83, 3.54]$ ), and the Specific Query condition ( $M = 3.45, SD = 1.46, p = .002, 95\% CI [3.03, 3.87]$ ).

Testing H2, participants in the Superior Status condition ( $M = 3.94, SD = 1.16, 95\% CI [3.60, 4.27]$ ) evaluated self-enhancers as more dislikeable than participants in the Low Status condition ( $M = 3.40, SD = 1.09, p = .048, 95\% CI [3.09, 3.71]$ ), the No Competition condition ( $M = 3.38, SD = 1.01, p = .038, 95\% CI [3.10, 3.67]$ ), and the Specific Query condition ( $M = 3.18, SD = 1.21, p = .003, 95\% CI [2.84, 3.52]$ ).

Finally, participants in the Superior Status condition ( $M = 4.52, SD = 1.66, 95\% CI [4.04, 5.00]$ ), perceived the self-enhancer to be more bragging than participants in the Low Status condition ( $M = 2.74, SD = 1.51, p < .001, 95\% CI [2.31, 3.17]$ ), the No Competition condition ( $M = 3.62, SD = 1.72, p = .021, 95\% CI [3.14, 4.09]$ ), and the Specific Query condition ( $M = 3.62, SD = 1.81, p = .023, 95\% CI [3.11, 4.13]$ ).

The results of Experiment 3 fully supported our predictions: Self-enhancers in the Superior Status condition were viewed as having a higher intent to appear superior, as more dislikeable, and as more bragging than self-enhancers in every other condition.

## 6. Meta-Analysis of Experiments 1, 2, and 3

After the initial three experiments were conducted, the data ( $n = 597$ ) was combined and analyzed together. The analysis showed highly significant general effects of condition on intent to appear superior ( $F(3, 593) = 29.737, p < .001, \eta^2 = 0.131$ ), dislikeability ( $F(3, 593) = 16.881, p < .001, \eta^2 = 0.079$ ), and perceived bragging ( $F(3, 593) = 18.326, p < .001, \eta^2 = 0.085$ ). As in the individual studies, the assumption of homogeneity of variance was not violated in any of the analyses. A Kruskal-Wallis test confirmed a significant effect ( $p < 0.001$ ) of condition on all dependent variables. Multiple comparisons were corrected using Dunnett *t*.

As in each individual experiment, the manipulation test was successful (H1). Participants in the Superior Status condition ( $M = 4.58, SD = 1.36, 95\% CI [4.35, 4.80]$ ) found the self-enhancer to have a higher intent to appear superior than participants in the Low Status condition ( $M = 3.11, SD = 1.47, p < .001, 95\% CI [2.88, 3.35]$ ), the No Competition condition ( $M = 3.41, SD = 1.51, p < .001, 95\% CI [3.16, 3.65]$ ), and the Specific Query condition ( $M = 3.40, SD = 1.43, p < .001, 95\% CI [3.16, 3.63]$ ).

Testing H2, the self-enhancer was deemed significantly less likeable in the Superior Status condition ( $M = 3.98, SD = 1.17, 95\% CI [3.79, 4.17]$ ) compared to the Low Status condition ( $M = 3.54, SD = 1.09, p = .002, 95\% CI [3.37, 3.71]$ ), the No Competition condition ( $M = 3.23, SD = 1.1, p < .001, 95\% CI [3.06, 3.41]$ ), and the Specific Query condition ( $M = 3.14, SD = 1.12, p < .001, 95\% CI [2.96, 3.32]$ ).

Finally, participants in the Superior Status condition ( $M = 4.62, SD = 1.62, 95\% CI [4.36, 4.89]$ ) viewed the self-enhancer as significantly more bragging than participants in the Low Status condition ( $M = 3.28, SD = 1.65, p < .001, 95\% CI [3.01, 3.54]$ ), the No Competition condition ( $M = 3.70, SD = 1.77, p < .001, 95\% CI [3.41, 3.99]$ ), and the Specific Query condition ( $M = 3.46, SD = 1.75, p < .001, 95\% CI [3.17, 4.74]$ ). Therefore, we conclude that the results from the meta-analysis support our predictions.

## 7. General discussion

In three experiments (original experiment, replication with minor rewording, replication with different domains of self-enhancement), participants had to rate the protagonist in a vignette. That protagonist always uttered the same self-enhancing statement, but in different contexts. In the Superior Status condition, the self-enhancing statement could plausibly be interpreted as a claim of superiority over its addressee. The other three conditions were constructed so that this interpretation would be less prominent. A manipulation check confirmed that participants thought the protagonist in the Superior Status condition attempted to communicate they were superior to their addressee. In line with our hypothesis, participants thought the self-enhancing protagonist was less likeable in the Superior Status condition. They were also more likely to think that the self-enhancing statement in that condition constituted a brag.

According to our interpretation of the results, bragging is disliked because it consists in a claim to superiority. This account is also somewhat congruent with other theories, though there are differences. According to the sociometer hypothesis the fact that braggards are perceived negatively could also be due to reducing self-esteem. Yet, one difficulty with this interpretation is that it does not explain why an observer should dislike the braggard if the observer's self-esteem is unaffected. In our vignettes, the self-enhancing claim is quite specific, and we showed that the self-enhancing claim has to be fitted to the addressee in order to produce the disliking: If the self-enhancer claims competence in chess but the addressee does not care about chess, the self-enhancer is not disliked. For the same reason, it is unlikely that the *observer's* (i.e., participant's) self-esteem is affected by the self-enhancing statement, because the self-enhancing claim is never fitted to the observer (i.e., the participant). Hence, there is also no reason to believe that the self-enhancing claim lowers the observers self-esteem, which would be required for an interpretation based on the sociometer hypothesis.

In relation with the hubris hypothesis, our research raises some questions concerning the relevance of explicit vs implicit self-enhancing claims. Previous research on the hubris hypothesis suggested that explicit rather than implicit self-enhancing claims lead participants to dislike the self-enhancer (Van Damme et al. 2016; Van Damme et al. 2017). However, our experiments used the same self-enhancing claim across conditions, and hence it is unclear to what extent the self-enhancing claim in the Superior Status condition (in which the self-enhancer was particularly disliked) is more explicit than in the other conditions. Nevertheless, and most importantly, the present research supports the wider family of theories to which our account as well as the hubris hypothesis belong.

Our research is also of relevance for the literature on humility, in particular intellectual humility (e.g., Priest 2017; Whitcomb et al. 2017; Leary et al. 2017; Davis et al. 2016; for review, see, Church & Samuelson 2017). Intellectual humility could consist in having an accurate view of one's own mental powers, knowledge, etc. However, scholars have noted that even someone who makes accurate statements about oneself can be perceived as not being intellectually humble at all; Priest (2017, p. 467) mentions for instance a famous professor who “jumps at every opportunity to mention his success” to their students. In the present framework, such claims would constitute bragging (even if they are accurate), since they would convey a clear claim of superiority (they are addressed to people for whom they are relevant, they do not answer specific query, etc.). This would explain why such claims, even if accurate, are difficult to reconcile with intellectual humility.

Our study has at least two significant limitations. First, despite efforts to introduce as little variation as possible between the vignettes of the different conditions, creating realistic scenarios meant that the vignettes could not be matched in every respect. In addition, if vignettes allow providing initial evidence, more naturalistic experiments—in which people watch videos of the encounters, or interact themselves with self-enhancers—would both provide greater ecological validity, and allow studying people's reaction to self-enhancers in more detail.

Second, our experiments were only conducted in one culture. The style and, probably, amount of self-enhancement, can vary significantly between cultures (Heine et al. 1999; Markus & Kitayama 1991; Sedikides et al. 2003), which might influence what type of self-enhancement is more or less likely to be disliked. Our contention is that, in every culture, self-enhancing statements that convey claims of superiority will be more disliked, even if there may be cross-cultural differences regarding the contexts in which self-enhancing claims are considered acceptable. That contention obviously remains to be tested, even if the ethnographic evidence mentioned in the introduction suggest that the dislike of people who claim superiority, and of bragging in particular, is a fairly cross-culturally common phenomenon.

An interesting consequence of our hypothesis is that bragging should be partly disliked because its explicit content is difficult to refute (assuming the brag is truthful), while its more important content (i.e. the claim to superiority) remains implicit, and is thus difficult to directly target. As a result, the addressees of a brag might find it difficult to find the appropriate response. This is coherent with the results of Sezer et al. (2018), who found that bragging that is less explicit, because it is masked by a complaint, elicits an even more negative response than more typical bragging. Future research could more directly test the hypothesis that explicit claims to superiority are less disliked than more implicit claims, which we suggest bragging is.

## **8. Conclusion**

A sizeable experimental literature has confirmed that, under some conditions, people dislike braggards. However intuitive this feeling might appear, it is not in fact trivial why we should dislike people who provide us with truthful and potentially useful information. The present results support the hypothesis that people dislike self-enhancers in particular when the self-enhancement conveys a general claim of superiority, and that it is then more likely to be considered a to be bragging.



Future research could explore the differences among the available theoretical frameworks. Inquiring about the observer's self-esteem could provide evidence in favor or against the sociometer hypothesis, which relies on the assumption that the observer's self-esteem is affected. Similarly, asking participants to what extent the self-enhancer would consider him or herself superior to them (the observers) could shed more light on the hubris hypothesis: If participants dislike the self-enhancer while indicating that the self-enhancer does not necessarily aim to be superior to them, then this would be evidence against the hubris hypothesis. This is because the hubris hypothesis is based on the idea that participants dislike braggards because participants feel included in the braggards' claim of superiority. Conversely, according to our account it is not necessary that the observer is directly implicated in the brag.

While the goal of the present study was to investigate the effects of self-enhancing claims across different contexts, future research could vary the linguistic details of how the brag is formulated (e.g., as a hedge or litotes). Finally, future research could improve on our methods by making the stimuli more realistic (e.g., by using videos instead of vignettes). This would enable investigation into the more subtle cues people use when evaluating brags and self-enhancing claims.

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