The Mistaken Preference for Overclaiming Contributions in Groups

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Abstract

At times, people inaccurately claim responsibility for their work in groups by overclaiming their contributions (claiming to contribute more than their due). Four experiments and seven supplemental experiments (*N*=3,619)—involving simulated and actual workgroups—test whether intending to appear competent (versus warm) causes group members to overclaim their contributions, as well as how overclaiming (compared to accurate claiming and underclaiming) contributions actually influences perceptions of group members' competence and warmth. Our results indicate that overclaiming contributions is a mistaken impression management strategy because group members overclaim their contributions to appear more competent (versus warm), but in reality, overclaiming primarily harms perceptions of warmth more than it improves perceptions of competence. Group members are also less likely to want to work with, and to nominate as the leader, a group member who overclaims contributions. Overall, overclaiming contributions is a mistaken impression-management strategy that carries both interpersonal and organizational costs.

Keywords: group; overclaim; contribution; responsibility; impression management; self-presentation; interpersonal perception; warmth; competence

The Mistaken Preference for Overclaiming Contributions in Groups

In 1970, the English rock band The Beatles split up, disappointing millions of fans across the globe.[1] Though there were several reasons why The Beatles split up, one reason was disagreement over song writing authorship. Consider band members John Lennon and Paul McCartney's disagreement about who wrote the lyrics for the 1966 track "Eleanor Rigby." Lennon told a magazine that he "wrote a good lot of the lyrics, about 70 percent," while McCartney insisted, "John helped me on a few words, but I'd put it down 80-20 to me" (Gilmore, 2009). Since Lennon and McCartney's contribution estimates of 70% and 80% add to more than the logical limit of 100% of any work that can be done in a group, at least one (or both) of the band members claimed to have contributed more to the song than they actually did. In other words, they *overclaimed* their contributions.

Given the prevalence of group work in organizations (e.g., Kozlowski & Bell, 2012; Lacerenza et al., 2017) and the increasing reliance across sectors on evaluating individual performance based on a person's contribution to group work (e.g., Caruso & Woolley, 2008; Shettar et al., 2020), the current paper investigates when and why people overclaim contributions for group work, as well as the consequences of overclaiming one's contributions—as compared to underclaiming one's contributions (i.e., claiming to contribute *less* than one actually did) or accurately claiming one's contributions (i.e., claiming to contribute *exactly* what one actually did). In particular, we test whether group members strategically overclaim their contributions to

[1] It may come as no surprise that the break-up of The Beatles created considerable sadness, leading one CBS News team to report the break-up "is so momentous that historians may, one day, view it as a landmark in the decline of the British Empire" (Badman, 2001, p. 4).

appear competent to others more than to appear warm, and whether overclaiming achieves the outcomes that claimers desire, that is, whether their contribution claims actually influence evaluators' impressions of them as well as evaluators' desire to work with them again and nominate them as a leader.

We propose and find that: (1) group members overclaim their contributions to convey competence more than warmth, because trying to appear competent (vs. warm) makes them engage in more instrumental thinking; but (2) overclaiming one's contributions, compared to underclaiming or accurately claiming one's contributions, harms perceived warmth more than it improves perceived competence because "overclaiming" group members are seen as diminishing others' contributions and prioritizing their own goals over the group's goals. Moreover, the penalty that overclaiming group members incur to their perceived warmth corresponds to less interest in both working again with that group member as well as nominating that member as a leader, highlighting the interpersonal and organizational consequences of overclaiming behavior. Our findings, therefore, suggest that claiming to contribute more than one actually did can backfire by diminishing rather than enhancing others' impressions, which, in turn, results in organizational consequences.

By identifying a disconnect between how group members think they will be judged for overclaiming their contributions and how they are actually judged, this paper makes three contributions. First, using an "actor-observer" framework (Jones & Nisbett, 1987), we contribute to the impression management literature by identifying and examining the different motives people have when claiming contributions versus evaluating those who do so, highlighting that overclaiming contributions is a persistent yet ineffective impression management strategy (e.g., Steinmetz et al., 2017). Second, we consider how contribution claims differ from well-studied

impression-management tactics such as humility, modesty, and boastfulness (e.g., Jones & Pittman, 1982). We suggest that overclaiming describes how people calibrate their contributions, while expressed behaviors such as humility and boastfulness are independent of the actual overclaim (i.e., a person can invoke modesty or boastfulness when they are underclaiming, accurately claiming, or overclaiming). We propose that overclaiming has been conflated with impression management behaviors and our theory distinguishes the calibration of claims from the stylistic impression management behaviors that may or may not be expressed along with those claims. Third, extending prior research on contribution claims (e.g., Caruso et al., 2006; Ross & Sicoly, 1979), we offer a more comprehensive understanding of the interpersonal and organizational consequences of engaging in different types of claiming behavior, such as being perceived to have leadership potential.

Contribution Claims in Groups

Determining how much credit each person deserves is often a central focus when group members work together toward a collective outcome. For instance, managers typically seek to identify each subordinate's unique contribution when conducting performance appraisals, which affect employee compensation, development opportunities, and promotions (e.g., DeNisi & Smith, 2014). To identify employees' contributions, managers consider not only their experience with employees but also employees' own claims about what they contributed (e.g., Campbell & Lee, 1988).

We define a c*ontribution claim* as a publicly stated, self-apportioned recognition of responsibility for the group's outcome (Rodgers et al., 2013).[2] Contribution claims can be

[2] Group members can make contribution claims for group successes and failures. Given the extensive literature on attributions for success and failure and how this distinction can cause people to both claim and perceive others differently (e.g., Miller & Ross, 1975), we focus on contribution claims for desirable, or at least neutral, group work.

quantitative (e.g., claiming responsibility for *20%* of the group's output), as well as qualitative (e.g., claiming responsibility for *most* of the group's output). We examine both types of claims, studying when group members overclaim, underclaim, and accurately claim their contributions (defined as claiming to contribute *more than, less than,* or *exactly* one's perceived share of work done, respectively). We operationalize overclaiming and underclaiming contributions along a single continuum, with accurate claiming as the midpoint.

Because perceptions of overclaiming, accurate claiming, underclaiming are subjective assessments of what a group member claims to have done relative to others' beliefs about how much the group member actually did, these assessments can vary within a group. For example, a target group member who publicly claims to be responsible for 25% of the group output but privately believes they only did 20% would be defined as *overclaiming* from their own perspective; yet if other group members believe the target person actually did 30%, then the other group members perceive that target person to be *underclaiming*. As this example illustrates, group members must have some sense of what a target person actually did to be able to assess the accuracy of that person's contribution claims. Group members or external observers who have no idea what a target person actually did are not able to judge the accuracy of the person's contribution claims and are thus not part of our theory.

Our interest is in *perceptions* of inaccurate contribution claims because these perceptions are particularly consequential for the impressions that people form and decisions they make about others. Focusing on perceptions of accuracy in contribution claims distinguishes the current paper from prior research in at least two ways. First, overclaiming behavior has been defined and measured at the group level, whereby each group member identifies the percentage of a group outcome for which they are personally responsible and, if the resulting sum of each

member's claims exceeds the logical maximum of 100%, it is taken as evidence of overclaiming (Ross & Sicoly, 1979). By instead examining the subjective interpretation of an individual's contribution claim as overclaiming, accurate claiming, or underclaiming, we identify the discrepancy between the impression each individual in a group desires and the impression that group members actually form of the individual. Second, we examine strategic contribution-claiming behavior, meaning claims that are motivated by certain personal objectives. Prior work has often examined inadvertent (non-strategic) overclaiming behavior that occurs due to people's natural inclination to focus on, and remember, their own contributions more than others' (a form of egocentrism; e.g., Leary & Forsyth, 1987; Kruger & Savitsky, 2009). We show, in contrast, that strategically overclaiming or underclaiming one's contributions is common and thus worthy of study.

Although overclaiming and underclaiming one's contributions to group work are related to other previously studied interpersonal behaviors such as bragging and modesty (e.g., Eagly & Acksen, 1971; Schlenker & Leary, 1982), there are two key differences between contribution-claiming and such interpersonal behaviors. First, while an individual can brag or be modest about attributes that are irrelevant to group work, overclaiming and underclaiming contributions are unique in their focus on the group's work. In particular, our theory examines how contribution-claiming behavior affects perceptions of group members because of the way these claims can threaten other group members' contributions and the goals of the group. Thus, contribution-claiming cannot be fully explained by impression-management techniques (e.g., bragging) that can also occur outside of group contexts.

Second, impression management behaviors such as bragging and modesty are defined not only by how a person calibrates their contributions but also by *how* they talk about these

contributions (e.g., in a boastful or modest way); in contrast, perceptions of overclaiming and underclaiming behavior do not depend on how the contribution claim is made, only on the content of the claim. For example, Exline and colleagues (2004) note that "the term modesty refers primarily to the moderate estimation of one's merits or achievements *and also extends into other issues relating to propriety in dress and social behavior*" (italics added; p. 463). In this way, modesty (which is viewed as the opposite of boastfulness; Ashton & Lee, 2008) includes stylistic elements of speech such as saying something in an unpretentious way that avoids attention (Gregg et al., 2007). Thus, it is possible to overclaim with stylistic elements of modesty (e.g., a group member who did little work saying, "I am responsible for 40% of the work thanks to my wonderful teammates") or to underclaim while bragging (e.g., a group member who did a lot of work saying, "The team is nothing without me because I am responsible for 20% of the group's work"). We return to consider how overclaiming and underclaiming can be stated in a modest or bragging style and the possible impression management consequences in the General Discussion, but the current paper focuses on simply *what* a group member claims instead of *how*, stylistically, they express the claim. In this way, we identify an actor-observer asymmetry in contribution claims, that does not depend on whether the claim is made in a bragging or modest way, and that is associated with novel organizational consequences.

Contribution Claims and Impression Management

People seek to enhance others' impressions of their warmth and competence (Holoien & Fiske, 2013; Jones & Wortman, 1973). Whereas perceptions of another person's warmth connote their positive or negative intentions towards us (e.g., such as the perception that the person is friendly, supportive, and helpful), perceptions of another person's competence concern the individual's ability to carry out their intentions (e.g., such as the perception that the person is

intelligent, has agency, and has skill; Fiske et al., 2007; Koch et al., 2020). Perceptions of others' warmth and competence explain the majority of variance in interpersonal judgments more broadly (e.g., Rosenberg et al., 1968; Wojciszke et al., 1998). Perceived warmth and competence also predict consequential outcomes, such as people's social networks (e.g., Casciaro & Sousa-Lobo, 2005), hiring and promotion decisions (e.g., Cuddy et al., 2011), and even election outcomes (e.g., Todorov et al., 2005).

People use various impression-management strategies to be viewed as warm or competent (Jones & Wortman, 1982; Schlenker, 1980). To appear warm, people tend to engage in other-focused tactics, such as ingratiating oneself to others and performing favors (e.g., Anderson et al., 2006; Cialdini et al., 1990; Weidman et al., 2016). To appear competent, people tend to engage in self-focused tactics, such as promoting their own accomplishments, successes, and unique characteristics (e.g., Godfrey et al., 1986; Higgins & Judge, 2004). To appear both warm *and* competent, people engage in strategies that combine other- and self-focused aspects, such as humblebragging, which is bragging masked by humility (Sezer et al., 2017), and being humorous (Bitterly & Schweitzer, 2019). Thus, when people prioritize appearing competent over warm, they likewise shift attention to themselves at the expense of others, leading them to engage in self-focused behaviors.

When people focus more on their own behavior and outcomes, they also tend to think more instrumentally (Belmi & Pfeffer, 2015; Gruenfeld et al., 2008); thus, desiring to appear competent (versus warm) may produce more instrumental thinking. Consistent with this theorizing, individuals who engage in more instrumental thinking tend to value competence over warmth (Belmi & Pfeffer, 2018), and when individuals are in work contexts—where attributes related to competence are especially valued—they tend to engage in more instrumental thinking

than when they are in personal contexts—where attributes related to warmth are especially valued (Belmi & Pfeffer, 2015; Belmi & Schroeder, 2020). In the context of contribution claims, instrumental thinking may lead one to overclaim (vs. accurately claim or underclaim) their contributions because instrumental thinking leads people to overlook the social consequences of their actions and disregard the welfare of others (e.g., Wang et al., 2014; Zhong, 2011).

In summary, we hypothesize that group members who want to convey their competence more than their warmth will engage in more instrumental thinking, and, as a result, will overclaim their contributions to the group output (as compared to accurately claiming or underclaiming their contributions). In contrast, when individuals desire to appear warm, we hypothesize that they will be less likely to overclaim their contributions, and instead will accurately claim or underclaim their contributions.

> **H1**: When trying to appear competent (vs. warm), group members will overclaim their contributions to the group output.
>
> **H2**: The positive relationship between the desire to appear competent (vs. warm) and overclaiming contributions will be mediated by increases in instrumental thinking.

Interpersonal Perceptions of Contribution Claims

Group members' evaluations of those who overclaim their contributions may differ from overclaimers' own presumption of how they will be judged. Building on prior research, we propose that overclaiming behavior may harm other people's perceptions of the contribution-claimer's warmth more than it improves their perceptions of the contribution-claimer's competence. There are at least two reasons why overclaiming one's contributions could reduce perceived warmth. First, allocating contribution credit among group members is zero-sum such that if one group member takes more credit than they are due, then, in effect, that person takes credit away from a fellow group member (Rodgers et al., 2013). In this way, an overclaim (vs.

accurate claim or underclaim) diminishes others' apparent contributions. Because warmth is inferred from an individual's general orientation toward recognizing and appreciating others (Koch et al., 2020), overclaiming contributions to a group (compared to accurately claiming or underclaiming) implicitly diminishes others' apparent contributions, and, as such, should reduce the extent to which one is perceived as warm by others.[3]

Second, prior work draws a distinction between collectivistic and individualistic actions. Whereas collectivistic actions are guided by prioritizing the group's interests, individualistic actions are guided by prioritizing the individual's interests (Chatman et al., 2019; Jackson et al., 2006). Since overclaiming contributions is more aligned with individual (vs. group) interests (i.e., individualism), and actions that are more individualistic (vs. collectivistic) are viewed as less warm (e.g., Kashima, 2001; Tafarodi & Swann, 1996), we expect overclaiming contributions to reduce warmth perceptions because overclaiming prioritizes an individual's goals over the group's goals.[4]

> **H3**: Evaluators will judge group members who overclaim (vs. accurately claim or underclaim) contributions as less warm.
>
> **H4a and H4b**: The negative relationship between overclaiming (vs. accurately claiming or underclaiming) contributions and warmth will be mediated by perceptions that the contribution claim (a) diminishes others' apparent contributions and (b) prioritizes individual over group goals.

As compared to assessments of warmth, assessments of a group member's competence may not be as strongly influenced by their contribution claims. On the one hand, appearing to

[3] While peer group members might particularly find a fellow group member who overclaims their contributions and thus diminishes their own perceived contributions to be less warm, we predict that even observers who are external to the group will perceive an overclaiming group member to be diminishing others' contributions, and thus perceive that overclaiming group member to be less warm.

[4] We do not theorize about whether accurate claiming is perceived differently from underclaiming, as our focus is on whether overclaiming is an effective impression-management strategy. Based on prior research that accurate claiming appears honest and fair (Fehr & Schmidt, 1999; Graham et al., 2013; Walster et al., 1978), it is possible that group members who accurately claim will be particularly interpersonally valued compared to members who underclaim their contributions. However, our experiments were not designed to test this question.

have contributed a lot to the group output could make a group member seem more competent (e.g., Anderson & Kilduff, 2009) and expressing confidence—or even overconfidence—can make a person appear more competent (e.g., Kennedy et al., 2013; Meikle et al., 2016). But on the other hand, overconfidence does not enhance perceived competence when one's true abilities or knowledge are known (Tenney et al., 2019). This suggests that if group members recognize a fellow member is inflating their contribution inaccurately, then they may no longer see the contribution-claimer as higher in competence. Moreover, in many group contexts there are implicit norms that group members should report equitable contributions because fairness and equity are valued (Blader & Tyler, 2003). Prior research has suggested that violating implied group norms can harm perceptions of the violator's competence (Eisenger & Mills, 1968; Mendoza et al., 2014). Thus, claiming to have contributed more than one's equitable share could harm one's perceived competence because it violates an unspoken group norm. Based on these findings, we suspect that overclaiming contributions is unlikely to increase perceived competence and could even decrease it. In this way, the effect of contribution claims on perceived competence is likely to be weaker than the effect on perceived warmth.

> **H5**: Group members' overclaiming of contributions will harm perceptions of their warmth more than it will increase perceptions of their competence.

Organizational Consequences of Contribution Claims

We suggest that overclaiming one's contributions to group work will have two material consequences in organizations. First, group members who overclaim their contributions (vs. accurately claim or underclaim) might harm team viability, which is the capacity of a team to be sustainable and continue to succeed in future performance episodes (Bell & Marentette, 2011). Team viability is important because it predicts the overall health and effectiveness of organizational teams (e.g., Hackman, 1987). Prior research indicates that, in task-related

interactions, people prefer not to work with those whom they dislike (i.e., whom they perceive as low in warmth), even if the disliked person is viewed as competent (Casciaro & Lobo, 2008). Assessments of a target's warmth contributes more to whether we approach or avoid them than do assessments of their competence, because that target's intent for good or ill (i.e., their warmth) matters more to our survival than that target's ability to act on their intent (i.e., their competence; Cuddy et al., 2011; Fiske et al., 2007). We propose that if group members who overclaim their contributions (vs. those who accurately claim or underclaim their contributions) are viewed as less warm, then evaluators should also be less inclined to want to work with the overclaiming group member (vs. the accurately claiming or underclaiming group member) in the future.

Second, group members who overclaim (vs. accurately claim or underclaim) their contributions might be less likely to emerge as leaders in the group. Being judged as having leadership potential is important because it influences people's ability to advance in an organization (e.g., Foti & Hauenstein, 2007). Prior research has established that a person's perceived warmth affects whether they emerge as a leader. For example, studies in political psychology have found that a candidate's perceived warmth influences others' projections of their likely election outcomes (e.g., Laustsen & Bor, 2017; Todorov et al., 2005). Moreover, different leadership styles, such as participative or transformational leadership, emphasize that leaders should project warmth to their followers (Cuddy et al., 2011; DeRue et al., 2015). Therefore, if group members who overclaim their contributions (vs. accurately claim or underclaim their contributions) are viewed as less warm (H3), then they should also be less likely to emerge as the group leader.

> **H6a and H6b**: Overclaiming (vs. accurately claiming or underclaiming) contributions for group work will reduce evaluators' (a) desire to work with the individual in the future

and (b) desire for the individual to emerge as a leader.

H7a and H7b: The effect of contribution-claiming behavior on (a) the desire to work again with the contribution-claimer and (b) desire for the contribution-claimer to emerge as a leader will be mediated by perceptions of the contribution-claimer's warmth.

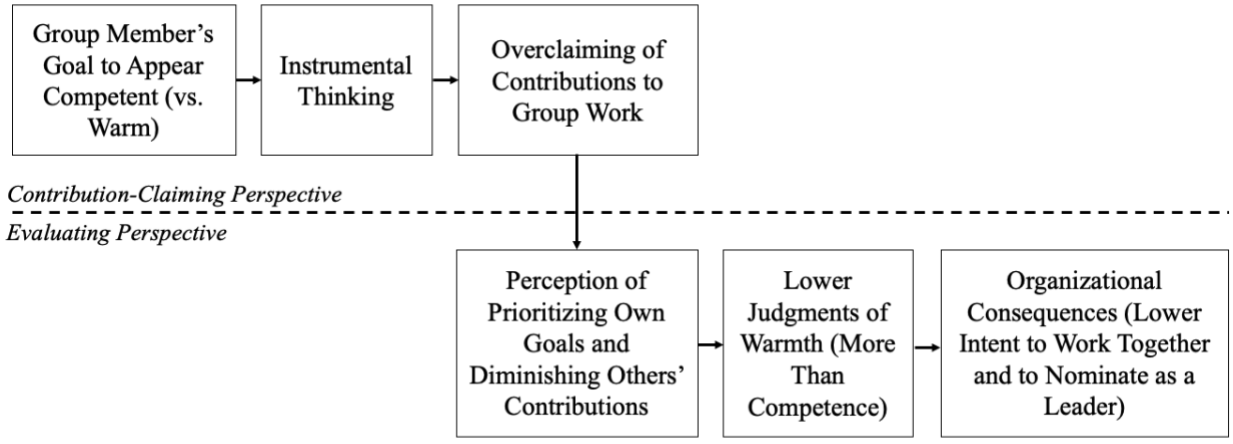
Overview of Experiments

We test our theory about why people engage in different types of contribution-claiming behavior and how they are judged for it in two pilot studies, four main experiments, and seven supplemental experiments. First, Pilot Studies A and B test the assumptions underlying our theoretical model and offer baseline measures of the contribution-claiming behavior. Specifically, Pilot Study A tests whether employees make public contribution claims in daily organizational life, as we contend, and Pilot Study B tests the frequency with which people strategically overclaim, accurately claim, and underclaim when making contribution claims. In testing our central hypotheses, Experiment 1a investigates whether group members overclaim contributions to appear competent more than warm (H1) after completing a cooperative task with a partner in the laboratory while Experiment 1b recruits a non-overlapping sample of evaluators who provide their impressions of the Experiment 1a group members based on how much members' overclaim, underclaim, and accurately claim their contributions to their groups (H3, H5, H6a, H7a). Experiment 2 further examines the discrepancy between predicted and actual evaluations in a fully randomized design using a workplace simulation (H1, H3, H5). Experiment 2 also tests the underlying psychological mechanisms for group members' contribution-claiming behavior and evaluations of it (H2, H4a-b). Lastly, in Experiment 3, we randomly assigned individuals to intact working groups in the laboratory and asked them to complete a cooperative problem-solving task together. Participants then reported their contributions to their group when trying to be competent and warm (H1), and then evaluated each group member after learning

about that member's contribution claims (H3, H4a-b, H5). Experiment 3 further tests for downstream organizational consequences of contribution claims such as interest in working again with each group member and leadership emergence (H6a-b, H7a-b). Experiment 3 provides support for our theoretical model when group members are both making contribution claims and evaluating other members on the basis of their claims, which is how groups typically operate in organizational settings. Please see Figure 1 for our theoretical model.

Figure 1

The Theoretical Model



Our theoretical model also illustrates the ways in which claiming differs from prior work on impression-management strategies like bragging and modesty. First, we test for an asymmetry between claimers' predicted and evaluators' actual evaluations of contribution claims, whereas past work has typically focused only on predictions or evaluations. Evaluators are external observers of the group in Experiment 1b, but they are members of the same group as the contribution-claimer in Experiments 2 and 3, which allows us to test whether our results are consistent regardless of whether the evaluator is an observer or another group member. Second, we depart from existing research (e.g., Wosinska et al., 1996) by focusing on the claim itself,

rather than how it is delivered stylistically. We do so by holding the stylistic element constant in our studies; participants make their claims (or we make them on their behalf) using objective standardized language that does not include behavioral expressions of related constructs such as modesty or bragging. Third, while an individual can brag or be modest about attributes that are irrelevant to group work, our theory pertains to perceived overclaiming and underclaiming contributions to group work in which evaluators have knowledge of each person's group contribution.

Taken together, our theory suggests that overclaiming one's contributions in a group is a mistaken impression management strategy. Rather than making group members appear more competent than warm, as claimers intend (H1), overclaiming harms group members' perceived warmth more than it improves their perceived competence (H3, H5). Across all of our studies, we report how we determined our sample size, all data exclusions, all manipulations, and all measures (Simmons et al., 2012). Our data, code, and survey materials are available in the Open Science Framework (OSF) repository for this project (https://osf.io/2ng7e/?view_only=494120933c9e4c3d81778f5dcd4ca443).

Pilot Studies A and B: Contribution-Claiming Behavior at Work

In Pilot Study A, we recruited 199 adults, who were working full-time, from Prolific Academic in exchange for $0.80 (125 male, 74 female; M_{age} = 34.46, SD_{age} = 9.09; https://aspredicted.org/blind.php?x=z83b5z). The goal of this study was to establish how often employees make contribution claims that are public in workgroups. As an eligibility check, we first asked participants, "Out of all of the projects you have completed in the workplace, how often have you engaged in team projects at work that produce one common, collective deliverable (for instance, one report or one product)?" Three participants who indicated "never"

(indicating no experience in team projects that produce a collective outcome) were moved to the end of the survey, resulting in a final sample of 196 adults. Otherwise, there were no data exclusions. We measured all subsequent variables using the same Likert scale in which "1" indicates that the focal claim behavior has never occurred and "5" indicates that the focal claim behavior occurs almost all or all of the time (1 = *never*, 2 = *sometimes*, 3 = *about half of the time*, 4 = *most of the time*, 5 = *almost all or all of the time*). To calculate the incidence of overclaiming, we compared the participant ratings to the value "1" (referring to the focal behavior "never" occurring) with one-sample t-tests. A statistically significant t-test thus indicates the focal claim behavior occurs with at least some frequency.

When engaging in team projects at work that produce a single deliverable, participants indicated they make contribution claims between *sometimes* and *half of the time* ("How often do you report how much you have personally contributed to the final deliverable?"; $M = 2.65$, $SD = 1.29$), $t(195) = 17.93$, $p < .001$, $d = 1.28$), indicating contribution claims occur with some frequency. Furthermore, participants reported that between *sometimes* and *half of the time* they: (1) "report the percentage or fraction that you contributed to the final deliverable" ($M = 2.07$, $SD = 1.24$), $t(195) = 12.07$, $p < .001$, $d = 0.86$; (2) "circle a number on a scale to quantify your contribution to the final deliverable (e.g., 1 to 10 scale)" ($M = 1.78$, $SD = 1.16$), $t(195) = 9.43$, $p < .001$, $d = 0.67$; (3) "report the number of hours that you contributed to the final deliverable (e.g., 20 hours)" ($M = 2.52$, $SD = 1.45$), $t(195) = 14.61$, $p < .001$, $d = 1.04$; and (4) "report the contribution in non-quantitative terms to the final deliverable (e.g., "I put the slides together")" ($M = 2.79$, $SD = 1.39$), $t(195) = 14.61$, $p < .001$, $d = 1.29$. Finally, we measured the degree that contribution claims are observable and public with the following item ("When you do report your personal contribution to the team project, how often do your coworkers find out what you

reported contributing?"; M = 2.97, SD = 1.49), $t(195) = 18.49$, $p < .001$, $d = 1.32$. These results provide insight both about how often workers make contribution claims and also that they make public contribution claims at work in different ways, such as reporting the percentage of work they contributed and stating their contributions qualitatively.

In Pilot Study B, we sought to gain insight into how often people accurately claim, overclaim, and underclaim their contributions in group settings. We recruited 200 participants from Amazon Mechanical Turk in exchange for $0.35 ($M_{age}$ = 33.16, SD_{age} = 10.75; 126 males, 74 females; https://osf.io/ntyp4/?view_only=494120933c9e4c3d81778f5dcd4ca443).[5] We asked participants to report the percentage of times they accurately claimed, overclaimed, and underclaimed their contributions to a group project: "Out of the total number of times you engaged in a group project in which you shared your contributions with your team, about what percent of the time would you estimate that you claimed more, less, or exactly as much credit than you thought you really deserved for the work?" Participants reported that they underclaimed more (M = 27.52%, SD = 28.02%; "Percent of the time I claimed less credit than I actually deserved") than they overclaimed (M = 15.81%, SD = 24.12%; "Percent of the time I claimed more credit than I actually deserved"), $t(198) = 4.32$, $p < .001$, $d = 0.31$, but that they accurately claimed contributions the most often (M = 57.37%, SD = 32.99%; "Percent of the time I claimed exactly as much credit than I actually deserved"), $ts(198) > 7.57$, $ps < .001$, $ds > 0.54$. Thus, even though participants reported accurately claiming most often (57% of the time), they still engaged in substantial overclaiming and underclaiming behavior (43% of the time).

[5] As reflected in the preregistration, Pilot Study B included additional questions on subsequent pages, including predictions about others' frequency of contribution claims across different domains (e.g., volunteer projects, team sports) and predictions about how one's contribution claim influences one's own interpersonal impressions. Since these measures are not relevant to the current research questions, we do not report them in the manuscript. The full survey and data are available on OSF (https://osf.io/utnrj/?view_only=494120933c9e4c3d81778f5dcd4ca443).

Overall, Pilot Studies A and B suggest that it is relatively common for workgroup members to make public and quantitative contribution claims, with group members reporting that they deliberately overstated or understated their true contribution almost half of the time they made a contribution claim. Having established a meaningful base rate of overclaiming behavior, we designed the following experiments to examine when people prefer to overclaim, underclaim, and accurately claim their contributions, and how such contribution claims affect interpersonal perceptions of the contribution-claimer. We designed the experiments to also capture variation in quantitative and qualitative contribution claims.

Experiment 1a: Motives to Overclaim Contributions

In Experiments 1a and 1b, we examine the circumstances in which group members prefer to overclaim contributions and the interpersonal perceptions that result from different contribution claims. In Experiment 1a, we recruited study participants to work in dyads and complete a cooperative story-writing task together. We designed the task so that each individual in the dyad contributed 50% to the task (i.e., writing the story). Subsequently, participants reported the percentage of the work that they personally contributed to the task, thereby providing what they think they actually contributed. Participants also reported how much they would claim to contribute to appear competent and how much they would claim to appear warm. We predicted that participants would prefer overclaiming when they were trying to be seen as competent, more so than when they were trying to be seen as warm (H1). In Experiment 1b, neutral evaluators read the dyad's actual output (the stories) and evaluated the dyad members' warmth and competence after learning about their different contribution claims.

Method

We preregistered our analysis plan and predictions on AsPredicted

(https://aspredicted.org/blind.php?x=3ky5qj).

Participants. We advertised 40 different laboratory session time slots for two participants in a laboratory experiment to an undergraduate participant pool at a West Coast university. We aimed to recruit at least 60 participants (30 dyads) because we knew not all 40 time slots would fill with two participants; ultimately, 58 participants (29 dyads) participated in exchange for $7 (20 male, 37 female, 1 unreported; M_{age} = 20.89, SD_{age} = 1.97).

Design. The experiment had three within-subjects conditions in which the impression-management goal was to be perceived as warm, to be perceived as competent, and to attract future teammates. Because the goal to attract teammates is not pertinent to our theoretical model, we report the results for this condition in the Supplemental Materials. The results for this condition resembled the results for the competent-goal condition.

Procedure. We randomly paired participants upon their arrival to the laboratory. We told participants that they would complete a task together, which was to write an "entertaining story" together by alternating sentences, ensuring that each participant would contribute half of the work. Each participant contributed one sentence at a time to the story in a sequential back-and-forth manner for seven minutes, creating one single story with their partner. We randomly assigned one participant to write the first sentence, and we gave participants different colored pens to distinguish their contributions to the story. We provided an incentive to the participants to take the task seriously by giving them an opportunity to win a $5 bonus if a non-overlapping sample of neutral evaluators rated their story as the most entertaining.

We designed this story-writing task with three specific criteria in mind: First, we created a novel task that participants did not have prior experience completing to render all participants' experience level effectively the same. Second, participants took turns writing sentences so that

the task would have a more fixed structure—requiring each member to produce half of the sentences—and deviations from reporting greater than 50% contribution can more easily be recognized as overclaiming. Although it is possible that some participants were more entertaining or wrote longer sentences than others, across our sample, and given random assignment, such perturbations should be minimal so that, on average, participants will have contributed 50%. Third, we selected a collaborative task that participants would find somewhat enjoyable and engaging. The full set of stories can be viewed on OSF (https://osf.io/2gmk7/?view_only=494120933c9e4c3d81778f5dcd4ca443).

After completing the task, we separated the participants, who then completed a post-task questionnaire.

Materials (Survey).

Contribution claims. After completing their story, participants reported (on a 0% to 100% scale) what they would "tell another person that they personally contributed to the story" to satisfy the goals of (1) "getting the person to like you," which measured the participant's goal of being seen as warm (*warm-goal condition*); and (2) "getting the person to think you are smart and hard-working," which measured the participant's goal of being seen as competent (*competent-goal condition*). For example, study participants viewed the following instructions for the warm-goal condition:

> "For the next part of the study, please imagine that someone else reads the story that you and your partner just created. That person will know which pen you used when they read the story. Imagine that you have to tell the person how much you personally contributed to the story. If you had to just report a single percentage that you contributed toward the story **to get the person to like you**, what would it be? (0% means that you contributed nothing to the story, and 100% means that you contributed everything to the story)."

Participants answered the warm-goal and competent-goal questions in randomized order.[6]

Self-reported contribution. As the last item in the survey, participants estimated their true contribution to the story: "Overall, please estimate your true contribution to the story as accurately as possible" (0% = *contributed nothing*, 100% = *contributed everything*; *M* = 52.79%, *Med* = 50%, *SD* = 10.38%).[7]

Results

Supporting our hypothesis (H1), participants reported that they would claim to contribute more to appear competent (*M* = 59.79%, *Median* = 60%, *SD* = 13.44%) than to appear warm (*M* = 53.63%, *Median* = 50%, *SD* = 14.22%), $t(57) = 2.80$, $p = .007$, $d = 0.37$. Because participants who believed that they actually did more than 50% may not see their behavior as overclaiming but, instead, see it as accurate (e.g., Ross & Sicoly, 1979), we also tested whether participants *intentionally* overclaimed even beyond their own estimation of their actual contributions. We calculated this as the difference between their contribution claim and their estimate of what they actually did. By this metric, participants overclaimed their contributions to appear competent (*M* = 7.00%, *SD* = 11.15%), *one-sample t-test t*(57*) compared to 0%* = 4.78, $p = .003$, $d = 0.63$, but not to appear warm (*M* = 0.84%, *SD* = 13.46%), *one-sample t-test t*(57) *compared to 0%* = 0.47, $p = .635$, $d = 0.06$. Moreover, again supporting H1, participants engaged in more overclaiming to appear competent (vs. warm), $t(57) = 2.79$, $p = .007$, $d = 0.37$. Given individuals were nested

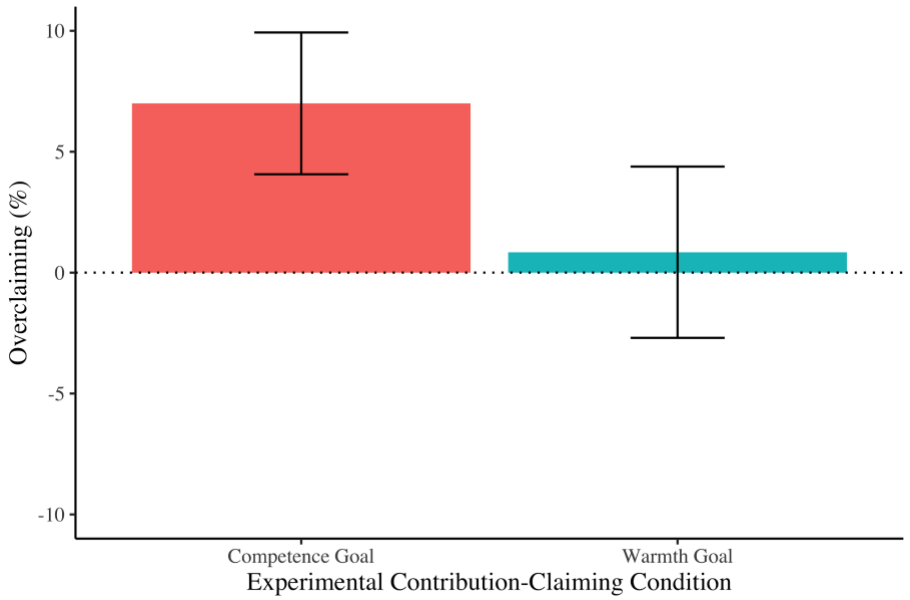
[6] We included an additional contribution claim measure in the survey, but to streamline the results section, we report this alternative measure in detail in the Supplemental Materials.

[7] As previously stated, based on how we designed the task, we believe that 50% is the true contribution of each person (on average). However, participants claimed slightly above 50% on average (M = 52.79%). One possible explanation for this deviation from equality in reported actual claims could be that participants used different definitions of 'contribution.' While each partner wrote one sentence at a time, the length, complexity, or entertainment value of the sentences could vary widely, and if such attributes were considered when participants estimated their actual contribution, variation from 50% could result. Furthermore, prior research shows that people egocentrically claim credit on tasks simply because they find it easier to remember and focus on their own contributions than on their partner's contributions (e.g., Schroeder, 2017).

within dyads, we additionally conducted a supplemental analysis with standard errors clustered by dyad. Consistent with the prior analysis, participants overclaimed more to appear competent (vs. warm), $t(57) = 2.81$, $p = .007$. See Figure 2.

Figure 2

The Effect of Impression Management Goal (Competence or Warmth) on Overclaiming of Contributions



Notes. The effect of experimental contribution-claiming condition (competence-goal, warmth-goal) on how much participants overclaimed their contributions in Experiment 1a. The y-axis represents participants' contribution claim to appear competent or warm minus participants' own estimated true contribution. The dotted horizontal line represents accurate claiming; values above the horizontal line indicate overclaiming, while values below the horizontal line indicate underclaiming. Error bars represent the 95% confidence intervals around the mean.

Discussion

Experiment 1a provides evidence that individuals adjust their contribution claims to meet specific impression management goals. Although the dyads in this study had direct access to their own and their partners' contributions, and they worked on a cooperative task designed to elicit equal contributions from each partner, they overclaimed their contributions when trying to appear competent (vs. warm), supporting H1. Moreover, they overclaimed despite knowing that

evaluators would be able to view their contributions to the story directly (via the pen color).

Our next question is how successful this overclaiming strategy is; that is, does overclaiming, in fact, have contribution-claimers' intended effect of leading evaluators to view the claimer as more competent? We designed Experiment 1b to assess how evaluators view overclaimers, underclaimers, and accurate claimers, testing whether overclaiming produces the higher perceptions of competence that contribution-claimers believe it will.

Experiment 1b: Evaluations of Contribution-Claimers

To test whether the Experiment 1a participants' (i.e., "story writers'") contribution claims had the intended influence on evaluators' impressions of them, we recruited a separate pool of participants ("evaluators") to examine each story writer's actual work product and the amount that he or she claimed to have contributed, and then report their impressions of the story writer. We predicted that evaluators would perceive story writers who overclaimed (vs. underclaimed or accurately claimed) as less warm (H3) and, as a result, find them less appealing to work with in the future (H6a, H7a). We also expected story writers' contribution claims to negatively influence evaluators' perceptions of their warmth but have relatively less influence on perceptions of their competence (H5).

Method

We preregistered our analysis plan and predictions on AsPredicted (https://aspredicted.org/blind.php?x=7c9c4i).

Participants. We predetermined our sample size to target 20 evaluations for each of 58 story writers from Experiment 1a, which meant—with a sample size of 400 participants—evaluators would rate three story writers each. We recruited 399 adults from the U.S. on Prolific Academic (175 male, 216 female, 8 unreported, M_{age} = 33.73, SD_{age} = 13.39), who completed the study in return for $1.60.

Design. The experiment had three within-subjects conditions: overclaim, underclaim, and accurate claim of contributions.

Procedure. Evaluators read three stories, randomly selected from the 29 total stories produced in Experiment 1a (which were presented in a standardized font on a computer), and were asked to evaluate one story writer from each dyad (across the three claim conditions, within-subjects) immediately after reading the story. We asked evaluators to judge one story writer from the dyad (randomly identified) rather than both members to isolate the effects of a single story writer's claiming behavior. The stories were written in blue or black text so that the evaluator could immediately see the contribution of the story writer they were evaluating (i.e., the blue-text writer or the black-text writer); thus, evaluators were aware that each story had two story writers but were only instructed to evaluate one story writer's contributions. Evaluators first estimated the story writers' "contribution to the story as accurately as possible" (from 0 to 100%, where 0% means that the writer contributed nothing to the story, and 100% means that the writer contributed everything to the story). Interestingly, evaluators believed that story writers had done slightly more than 50% on average (M = 52.84%, SD = 13.75%), a finding consistent with prior research on focalism (e.g., Windschitl et al., 2003).

Evaluators then reported how they would evaluate the story writer differently if the story writer had made three different claims (overclaim, underclaim, or accurate claim, in randomized order). While the accurate claim was the evaluators' judgment of the story writers' perceived contribution, the overclaim was 10% more than the story writers' perceived contribution, while the underclaim was 10% less than the story writers' perceived contribution. For instance, if an evaluator thought a particular story writer contributed 53% to the story (the evaluator average, rounded to the nearest whole number), the evaluator imagined the story writer contributed 53%

(accurate claim), 63% (overclaim), and 43% (underclaim), in a randomized order. Note that if an evaluator said a story writer contributed more than 90% or less than 10%, the manipulation produced invalid contribution claims (e.g., 105% or -5%). Thus, per our preregistration, we excluded observations in which the true estimated contribution was more than 90% or less than 10% (2.34%, or 84 out of 3,591 observations).

Evaluators judged the story writers on the same two attributes that the story writers themselves were trying to maximize in Experiment 1a, measuring (1) warmth: "If the person claimed to have contributed [XX]% to the story, to what extent would you like the person?" (1 = *would not at all like*, 7 = *would extremely like*) and (2) competence: "If the person claimed to have contributed [XX]% to the story, to what extent would you think that the person was smart and hard-working?" (1 = *would think the person was not at all smart and hard-working*, 7 = *would think the person was extremely smart and hard-working*). As a downstream consequence, we also measured intention to work with the story writer in the future ("If the person claimed to have contributed [XX]% to the story, to what extent would you want to work with the person in the future?" (1 = *would not at all want to work with the person*, 7 = *would definitely want to work with the person*). The manipulation—XX%—was updated depending on the story writers' perceived contribution (piped-in using Qualtrics survey software). Notably, the manipulation of the story writers' perceived contribution held constant the stylistic elements (e.g., how the claim is reported), which isolated the effects of overclaiming from prior research which has examined stylistic approaches (e.g., modesty, boastfulness). We presented the warmth and competence items in a randomized order, and the "intention to work with" item was collected last. After making all nine assessments of one story writer, evaluators were then (randomly) presented with another story and made another nine assessments for the next story writer, and so on until they

had evaluated the three story writers to which they had been randomly assigned.

Results

Analytic strategy. To test our hypotheses, we conducted multilevel modeling with crossed random factors for story writers and evaluators because our study design involved ratings nested within story writers and evaluators (i.e., Judd et al., 2017). Thus, our analysis is at the level of evaluator judgment, in which each evaluator made 9 judgments (3 contribution claims for 3 story writers; *N of observations after exclusions* = 3,506).

Evaluations of contribution-claiming behavior. Supporting H3, evaluators viewed overclaimers (M = 4.31, SD = 1.30) as less warm than accurate claimers (M = 5.11, SD = 1.20), $t(3{,}039.65)$[8] = -18.45, $p < .001$, d = -0.67, and less warm than underclaimers (M = 4.67, SD = 1.27), $t(3{,}039.65)$ = -8.27, $p < .001$, d = -0.30. Moreover, evaluators rated overclaimers (M = 4.54, SD = 1.31) as less competent than accurate claimers (M = 5.05, SD = 1.24), $t(3{,}047.16)$ = -11.72, $p < .001$, d = -0.42, and overclaimers did not differ in competence compared to underclaimers (M = 4.51, SD = 1.35), $t(3{,}047.16)$ = 0.67, p = .502, d = 0.02. Accordingly, supporting H5, the effect of claiming behavior (overclaim vs. underclaim) was stronger on perceptions of warmth than on perceptions of competence, $F(1, 4214.40) = 38.46$, $p < .001$, η_p^2 = .009.[9] See Figure 3.

Consequence of contribution-claiming behavior. Next, we observed a consequence of evaluators' diminishing overclaimers' warmth. Specifically, supporting H6a, evaluators had less intent to work with overclaimers in the future (M = 4.27, SD = 1.51) than with accurate claimers (M = 5.13, SD = 1.43), $t(3{,}039.37)$ = -16.59, $p < .001$, d = -0.60, and with underclaimers (M =

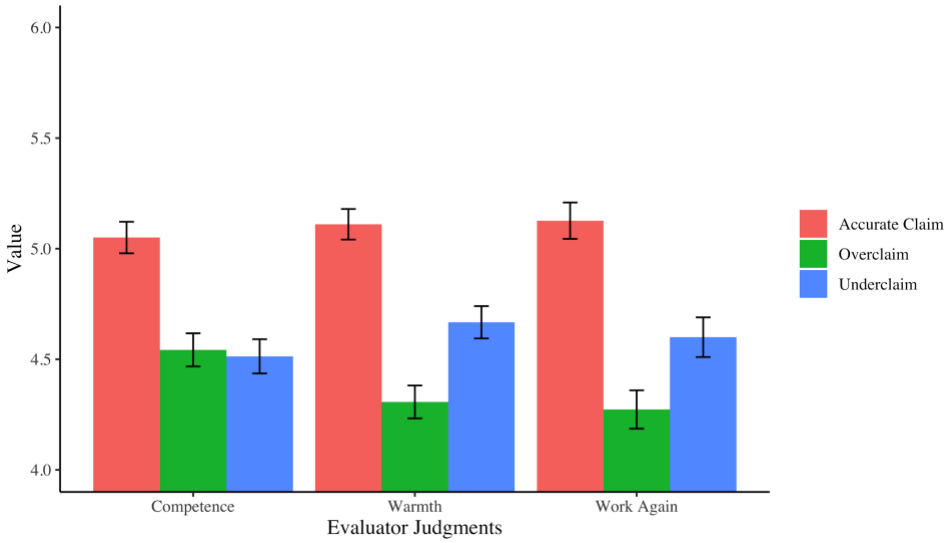
[8] The degrees of freedom include decimals and vary between tests because we used Satterthwaite's approximation method for degrees of freedom for multilevel models.

[9] Further supporting H5, a 3(claim: accurate claim, overclaim, underclaim) × 2(judgment: competence, warmth) ANOVA was also significant, $F(1, 655) = 41.31$, $p < .001$, η_p^2 = .006.

4.60, *SD* = 1.56), *t*(3,039.37) = -6.35, *p* < .001, *d* = -0.22. Moreover, perceived warmth mediated the relationship between overclaim (vs. accurate claim and underclaim) and intention to work together (H7a) (indirect effect: *ab* = -0.17, SE(*ab*) = 0.02, Cluster Robust 95% CI [-0.200, -0.138]).[10]

Figure 3

Effect of Experimental Claim Condition (Accurately Claiming, Overclaiming, or Underclaiming One's Contributions) on Perceived Competence, Warmth, and Intention to Work Together



Notes. The y-axis represents participants' survey responses on 7-point scales. Error bars represent the 95% confidence intervals around the mean.

Discussion

Group members who overclaimed (vs. accurately claimed or underclaimed) their contributions toward writing a story together were perceived by evaluators to be less warm. Moreover, overclaiming (vs. underclaiming) contributions impacted judgments of warmth more than judgments of competence—story writers who overclaimed (vs. underclaimed) their contributions did not differ in perceived competence but did differ in perceived warmth. Further,

[10] As exploratory analyses, we also compared judgments of underclaimers to accurate claimers. Evaluators judged underclaimers as less warm, less competent, and had less intention to work with them compared to accurate claimers, *ts*(3039.64) < -10.18, *ps* < .001, *d*s < -0.37. These results indicate that–compared to overclaiming–underclaiming is a more conservative comparison condition than accurate claiming.

evaluators' diminished perceptions of overclaimers' warmth accounted for the relationship between overclaiming and lower intention to work with the person (vs. accurate claimers or underclaimers).

This pattern of evaluations contrasts with the impressions that the story writers in Experiment 1a intended to create. Story writers in Experiment 1a chose to overclaim their contributions to improve others' impressions of their competence (vs. warmth), whereas evaluators in Experiment 1b perceived overclaiming story writers as less warm and no more competent than underclaiming story writers (and less competent than story writers who accurately claimed their contributions). Overclaiming contributions, therefore, appears to be a mistaken impression management strategy because group members engage in overclaiming to appear more competent than warm, but in reality, overclaiming harms perceived warmth more than it improves perceived competence.

Experiment 2: Workgroup Simulation

Experiment 2 tests what group members claim to contribute when they communicate with their own group members (to appear warm or competent), and how they are judged for their contribution claims (in terms of warmth and competence judgments), using an experimental workplace simulation. As in Experiments 1a and 1b, we hypothesized that group members would overclaim their contributions to seem more competent than warm (H1), while evaluators would judge overclaimers as less warm than underclaimers (H3). Moreover, we hypothesized that overclaiming (vs. underclaiming) would have a stronger effect on impressions of warmth compared to impressions of competence (H5).

Moving beyond Experiments 1a and 1b, Experiment 2 examines *why* group members overclaim to appear competent (vs. warm) and *why* overclaiming (vs. underclaiming) individuals

are seen as less warm. We hypothesized that having a competence (vs. warmth) goal would activate more instrumental thinking, resulting in more overclaiming (vs. accurate claiming or underclaiming; H2) but also that overclaiming would be considered less warm because it diminishes other group members' apparent contributions and is seen as deprioritizing the goals of the group (H4a-b).

Method

We preregistered the experiment on AsPredicted (https://aspredicted.org/blind.php?x=5u57n4).[11]

Participants. We predetermined 200 participants for each of two between-subjects experimental conditions. In total, 400 U.S. adults (210 male, 188 female, 2 other; M_{age} = 35.14, SD_{age} = 11.47) from Prolific Academic participated in exchange for $0.80 compensation.

Design. The experiment design included two between-subjects conditions (contribution-claiming vs. evaluating), with two additional contribution-claiming conditions (warmth vs. competence goal) and two additional evaluating conditions (overclaimer vs. underclaimer), within-subjects. In the evaluating conditions, we did not include an accurate claiming comparison condition because Experiment 1b demonstrated that underclaiming is a more conservative comparison to overclaiming.

Procedure. Participants in all conditions were told the following:

> "Imagine that you and four co-workers are working on a project together. Your task is to generate a new marketing campaign for a client and prepare a PowerPoint presentation to pitch this idea to your client. At the end of the meeting, each member of your team publicly states their contribution to the final deliverable (the client PowerPoint presentation)."

Participants in the [warmth goal]/[competence goal] contribution-claim conditions were then

[11] In the preregistration, we referred to our measure of instrumental thinking as a "calculative and strategic mindset."

asked to "please imagine that you are trying to make your team members believe that you are as [warm, good natured, and supportive]/[capable, competent, and intelligent] as possible." After reading each goal, we measured overclaiming with the following item: "I would state that I contributed" (1 = *a lot less than I think I contributed*, 3 = *exactly what I think I contributed*, 5 = *a lot more than I think I contributed*). While "3" reflects accurate claiming, "4" and "5" indicate overclaiming, and "1" and "2" indicate underclaiming.

Moreover, participants in the contribution-claiming conditions responded to two items that measured our hypothesized mediating variable of instrumental thinking: "When trying to be [warm, good natured, and supportive]/[capable, competent, and intelligent], to what extent would you try to be (1) strategic in what you say you contributed? (2) calculative in what you say you contributed?" (1 = *not at all*, 5 = *extremely*; Belmi & Schroeder, 2020; $r = .70$). Finally, we asked participants the following question as a manipulation check regarding their goals: "In the scenario you just imagined, to what extent were you trying to make your team members believe you were" (1 = *very warm*, 3 = *neither warm nor competent*, 5 = *very competent*). The warmth and competence goal conditions were presented in a counterbalanced order.

Participants in the [overclaim]/[underclaim] evaluating conditions were asked to "imagine that a co-worker stated that they contributed a lot [more]/[less] than you think they did." We measured perceived warmth (warm, supportive, good natured; $\alpha = .96$) and competence (capable, competent, intelligent; $\alpha = .94$) using the same goal items that we presented to participants in the contribution-claim conditions (1 = *not at all*, 5 = *extremely*; based on Fiske et al., 2002). To measure our predicted mechanisms, participants rated the degree to which the co-worker's contribution claim diminishes others' contribution to the group with the following two items: "To what extent would you think that your co-worker's contribution claim (1) diminishes

your contribution to the project, and (2) downplays your own contribution to the project" (1 = *not at all*, 5 = *extremely; r* = .95). Moreover, participants rated the degree that the co-worker's contribution claim prioritizes individual goals over group goals with the following two items: "To what extent would you think that your co-worker's contribution claim (1) emphasizes the goals of the team more than your co-worker's individual goals, and (2) prioritizes the goals of the team more than your co-worker's individual goals" (1 = *not at all*, 5 = *extremely;* Jackson et al., 2006; *r* = .96). We reverse-scored these items so that higher numbers indicate a stronger prioritization of individual over group goals. Finally, participants completed a manipulation check, "To what extent did your co-worker claim to contribute more than they actually did (i.e., overestimate their contribution)?" (1 = *not at all*, 5 = *extremely*). The overclaim and underclaim evaluating conditions were presented in a counterbalanced order.

Results

Analytic strategy. Since we employed a within-subjects design, we used multilevel modeling to account for non-interdependent data (random intercept model; Brauer & Curtin, 2017). Because there were two observations per participant, and *n* = 202 participants in the contribution-claim conditions and *n* = 198 participants in the evaluating conditions, there were a total of 404 observations in the contribution-claim conditions and 396 observations in the evaluating conditions.

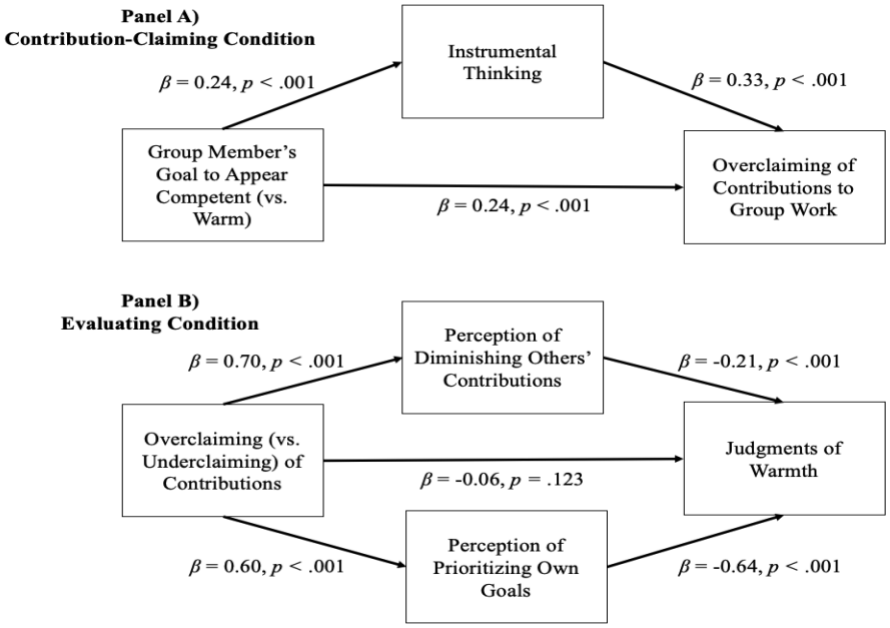
Manipulation checks. Demonstrating that our manipulations had their intended effects, participants in the contribution-claiming conditions desired to appear more competent in the competence goal condition (*M* = 4.53, *SD* = 0.83) than in the warmth goal condition (*M* = 2.05, *SD* = 1.36), $t(402) = 22.18$, $p < .001$, $d = 2.21$. Moreover, participants in the evaluating conditions thought the co-worker in the overclaim condition (*M* = 4.09, *SD* = 0.92) claimed to

contribute more than they actually did (i.e., overestimated their contribution) as compared to the underclaim condition (M = 1.74, SD = 1.10), $t(394) = 23.08$, $p < .001$, $d = 2.33$.

Predictors of contribution-claiming behavior. Supporting our hypothesis (H1), participants overclaimed to appear competent (M = 3.48, SD = 0.75) more than to appear warm (M = 2.95, SD = 0.83), $t(201) = 9.14$, $p < .001$, $d = 0.67$. More specifically, participants reported that they would overclaim to appear competent, *one-sample t*(201) *compared to 3.0* = 9.12, d = 1.28, but not to appear warm, *one-sample t*(201) *compared to 3.0* = -0.85, d = -0.12. Next, we tested the proposed mechanism that accounts for the link between the competence (vs. warmth) goal and overclaiming. Participants in the competence-goal condition reported more instrumental thinking (M = 3.61, SD = 1.06) than did participants in the warmth-goal condition (M = 3.08, SD = 1.07), $t(201) = 7.37$, $p < .001$, $d = 0.67$. Supporting H2, instrumental thinking mediated the relationship between competence (vs. warmth) goal and overclaiming (indirect effect: ab = 0.08, $SE(ab)$ = 0.02, Cluster Robust 95% CI [0.049, 0.112]). See Figure 4, Panel A.

Figure 4

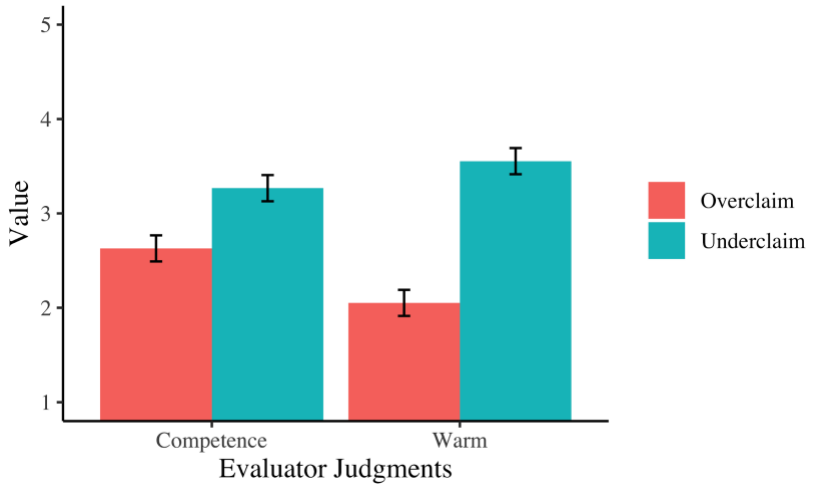
Mediation Results for Contribution-Claiming (Panel A) and Evaluating (Panel B) Conditions in Experiment 2



Evaluations of contribution-claiming behavior. In contrast to participants' stated preference to overclaim their contributions to appear competent (vs. warm), and supporting H3, evaluators rated overclaimers (M = 2.05, SD = 1.03) as less warm than underclaimers (M = 3.56, SD = 0.98), $t(394) = -14.90$, $p < .001$, $d = -1.50$. Evaluators also rated overclaimers (M = 2.63, SD = 0.97) as less competent than underclaimers (M = 3.27, SD = 0.99), $t(394) = -6.46$, $p < .001$, $d = -0.65$. In other words, while contribution-claimers thought that overclaiming their contributions would boost their perceived competence, overclaiming (relative to underclaiming) diminished their perceived warmth *and* competence. Moreover, supporting H5, the contribution-claim condition influenced evaluations of warmth, $d = -1.50$, more than evaluations of competence, $d = -0.65$, as evidenced by a significant interaction, $F(1, 591) = 43.77$, $p < .001$, $\eta_p^2 = .07$. See Figure 5.

Figure 5

Effect of Experimental Claim Condition (Overclaiming or Underclaiming One's Contributions) on Perceived Competence and Warmth in Experiment 2



Notes. The y-axis represents participants' survey responses on 7-point scales. Error bars represent the 95% confidence intervals around the mean.

Testing our proposed evaluator mechanisms, the overclaiming group member was seen as diminishing other group members' apparent contributions (M = 3.59, SD = 1.15) and prioritizing their individual goals (M = 4.13, SD = 1.11) compared to the underclaiming group member (Ms = 1.61 and 2.35, SDs = 0.84 and 1.25), $ts(394)$ = -19.60 and -14.97, ps < .001, ds = -1.97 and -1.51. We tested whether these two candidate mediators accounted for a significant share of the relationship between overclaiming (vs. underclaiming) behavior and evaluations of warmth in a simultaneous mediation model. Supporting our first mediation prediction (H4a), the extent to which the claim was seen as diminishing others' contributions mediated the effect of overclaiming (vs. underclaiming) contributions on reduced warmth (indirect effect: ab = -0.15, $SE(ab)$ = 0.04, Cluster Robust 95% CI [-0.221, -0.081]). Furthermore, supporting our second mediation prediction (H4b), the extent to which the claim was seen as prioritizing individual over group goals mediated the effect of overclaiming (vs. underclaiming) contributions on reduced warmth (indirect effect: ab = -0.39, $SE(ab)$ = 0.04, Cluster Robust 95% CI [-0.453, -0.317]). See Figure 4, Panel B.

Discussion

Results from Experiment 2 offer further support for our theory that individuals overclaim when trying to appear competent (vs. warm). In contrast to contribution-claimers' beliefs, evaluators rated overclaimers as less warm *and* less competent than underclaimers. Critically, Experiment 2 further documents the psychological mechanisms underlying contribution-claiming behavior and evaluations of contribution-claiming behavior. Regarding predictors of contribution-claiming behavior, our results suggest that one reason why people overclaim their contributions to appear competent (vs. warm) is because having a competence (vs. warmth) goal activates more instrumental thinking. Regarding evaluations of contribution-claiming behavior, our results suggest that individuals rate overclaimers (vs. underclaimers) as less warm because overclaimers are seen as diminishing other group members' apparent contributions and prioritizing individual over group goals. Importantly, Experiment 2 demonstrates the differences between contribution-claiming behavior and subsequent evaluations (and the associated mediational pathways) in a fully randomized experimental design, allowing us to draw causal conclusions about how being the contribution-claimer compared to being the evaluator changes beliefs about and reactions to overclaiming.

Experiment 3: Workgroups Completing a Cooperative Task Together

In Experiment 3, group members completed a cooperative work task together, reported their contributions to their group when trying to be competent and warm, and then evaluated each group member after learning about that members' contribution claims. We hypothesized that group members would overclaim their contributions more to appear competent than warm (H1), and yet would evaluate overclaimers (vs. accurate claimers or underclaimers) as less warm (H3) than competent (H5). Moving beyond the prior experiments, this experiment tests whether

our findings generalize to more realistic organizational settings when (1) contribution-claimers and evaluators interact face-to-face as members of the same working team; (2) contribution-claimers make real (not hypothetical) claims that fellow group members view; and (3) both contribution-claimers and evaluators have full knowledge of each person's unique contribution to the group output. Furthermore, this experiment considers behavioral consequences of overclaiming. We hypothesize that group members will be less interested in working with overclaimers (vs. accurate claimers or underclaimers) and less willing to nominate them as the group leader (H6a-b, H7a-b).

Method

We preregistered the experiment on OSF (https://osf.io/by2wx/?view_only=506ff0bcdfe846b08569b6177c4c7909).

Participants. Our preregistration plan specified that we would collect data until we had recruited 60 groups. In total, 60 groups of between three to five people each (264 total individuals) from an undergraduate participant pool at a West Coast university participated in exchange for $20 per group member or course credit (64 male, 197 female, 3 unreported; M_{age} = 20.05, SD_{age} = 1.39). We also gave one participant per group a $5 bonus.

Procedure. We randomly assigned participants into groups (M = 4.40 people, SD = 0.67, Min = 3, Max = 5). We conducted all sessions via videoconference (with participants' video cameras turned on).[12]

Phases 1 and 2: Individual case and group discussion. In the first phase of the experiment, participants worked individually for 5 minutes on a previously validated

[12] We conducted this experiment six months after the onset of COVID-19 in the United States, so we have reason to believe our sample (undergraduate students) were accustomed to interactions using video conferencing software (e.g., classes and student socializing was conducted via video conference).

organizational case called the "Desert Landing Task," in which they rank-ordered 18 items in importance after a plane had crashed in the desert (Hall & Watson, 1970). In the second phase of the experiment, participants worked together with their assigned groups for 15 minutes to compile a single ranking of items of how to respond to the situation. The ranking compiled by groups constituted the collective group output.

Phase 3 (Contribution-Claiming Survey): Reported contributions. In the third phase, participants reported their own and each group member's contributions to the group task in a survey (round-robin design). These reports constituted our primary measure of contribution-claiming. Specifically, the survey instructions were:

> "Please estimate everyone's contribution to your group task as accurately as you can. Write the percentage that you and each group member contributed below from 0 to 100%, where 0% means that they did none of the work on the task, and 100% means that they did all the work on the task. All of the contributions summed together must add to 100%."

After participants reported their perceived contributions, they were instructed to "imagine that you are trying to make your group members believe that you were as capable, competent, and intelligent as possible" (*competence-goal* condition) and "imagine that you are trying to make your group members believe you were as warm, good natured, and supportive as possible" (*warmth-goal* condition) in counterbalanced order. We created the descriptions of competence and warmth based on prior research (Fiske et al., 2002; also see Experiment 2). For both the competence and warmth goal conditions, participants again reported "how much would you state that you contributed to your group" from 0% to 100%, to test whether their contribution claims change when they are deliberately trying to appear competent and warm.

Participants learned that their "group members will see what you reported about yourself" and that this information would be used "to select a group leader for the next group task." To

make the group leader position enticing, we allocated an additional $5 to the person in the group selected to be the leader. After completing Phase 3, participants completed a personality assessment as a filler task (John & Srivastava, 1999).

Phase 4 (Evaluating Survey): Evaluation of group members and leader nomination. In the fourth phase, we randomly assigned participants to view either the competence-goal contribution claim or the warmth-goal contribution claim for each group member (excluding themselves) and subsequently evaluate the group member (using a round-robin design).[13]

As in Experiment 2, we measured two possible mechanisms for the hypothesized relationship between overclaiming contributions and perceived warmth. First, group members rated the degree to which the group member's contribution claim diminishes others' contribution to the group with the following two items: (1) "To what extent does [Name]'s contribution claim diminish your own contribution to the group?"; and, (2) "To what extent does [Name]'s contribution claim downplay your own contribution to the group?" (1 = *not at all,* 7 = *extremely; r* = .93). Second, group members rated the degree that the target's contribution claim prioritizes individual goals over group goals with the following two items: (1) "To what extent does [Name]'s contribution claim emphasize the goals of the group more than [Name]'s individual goals?"; and, (2) "To what extent does [Name]'s contribution claim prioritize the goals of the group more than [Name]'s individual goals?" (1 = *not at all,* 7 = *extremely; r* = .90; Jackson et al., 2006). We reverse-scored these items such that higher numbers indicate prioritization of individual over group goals.

For our primary outcome measures, as in Experiments 1b and 2, we measured perceived

[13] To ensure that participants evaluated the correct contribution-claim based on the experimental condition to which they were assigned, we asked participants to copy-and-paste the claim into their individual Qualtrics survey. As preregistered, we excluded 2.49% (23/924) of evaluator judgments due to copy-and-pasting errors, resulting in a final sample of 901 evaluator judgments.

warmth and competence. We measured warmth and competence on the same items described in the Contribution-Claiming Survey and used in Experiment 2 (adapted from Fiske et al., 2002). For warmth, participants reported how much others were: warm, good-natured, and supportive (1 = *not at all*, 7 = *extremely;* $\alpha = .93$). For competence, participants reported how much others were: capable, competent, and intelligent (1 = *not at all*, 7 = *extremely;* $\alpha = .94$).

Finally, we measured two potential consequences of participants' contribution claims changing others' impressions of them. First, participants rated their intention to work with each group member again: "How do you feel about working with [Name] in the future?" (1 = *very negative*, 7 = *very positive*). Second, participants nominated group members to be the team leader: "Do you want to nominate [Name] as the group leader? (Remember, you can nominate as many group members as you want. The person who gets the most nominations will receive a $5 bonus.)" There were two response options: *Yes* or *No*. Participants could nominate as many individuals as they wanted but could not nominate themselves.

Results

Analytic strategy. Consistent with our theory that perceptions of overclaiming are subjective and depend on beliefs about the group member's true contributions, we computed two different measures of contribution-claiming in this study. First, in the contribution-claiming perspective, we compared participants' public contribution claims with their private self-reported beliefs about their own contributions to assess whether they deliberately overclaimed, accurately claimed, or underclaimed (by taking the difference score of their contribution claim and their estimate of what they actually did). Thus, a participant who publicly claimed to contribute 30% but privately believed they did 20% would be measured as deliberately overclaiming by 10%. Second, in the evaluating perspective, we compared participants' public contribution claims with

their fellow group members' perceptions of their true contributions to assess whether participants were seen as overclaiming, accurate claiming, or underclaiming from their peers' perspectives (by taking the difference score of their contribution claim and their peers' estimate of what they actually did). Thus, a peer group member who believed a group member who claimed to contribute 30% actually contributed 25% would be measured as perceiving that group member to overclaim by 5%.[14] Although we preregistered these measures of overclaiming, we also report results using alternative calculations to assess robustness in the Supplemental Materials; the results are statistically identical. Moreover, group members' evaluations are nested within the evaluator, contribution-claimer, and group (three crossed random factors; Judd et al., 2017), so we used multilevel models to address the nested nature of the evaluation data.

Predictors of contribution-claiming behavior. Supporting our hypothesis about contribution-claiming behavior (H1), group members' overclaimed their contributions more to appear competent (M = 33.16%, SD = 15.90%) than to appear warm (M = 28.48%, SD = 14.98%), *paired t-test* $t(263) = 7.06$, $p < .001$, $d = 0.32$, indicating that the desire to appear competent (more so than the desire to appear warm) drives overclaiming behavior. Compared to what group members actually thought they contributed without an impression-management goal (M = 22.86%, SD = 8.08%), group members overclaimed to appear competent (M = 33.16%, SD = 15.90%), *one-sample t-test* $t(263)$ *compared to self-reported contribution* = 11.03, $p < .001$, $d = 0.65$—as well as to appear warm (M = 28.48%, SD = 14.98%), *one-sample t-test* $t(263)$

[14] To check the construct validity of our measure of overclaiming, we included a manipulation check at the end of the evaluation survey ("To what extent did [Name] claim [XX%] to contribute more than they actually did [i.e., overestimate their contribution]?"; 1 = *not at all*, 7 = *extremely*). The group member's name and claim [XX%] were piped in with Qualtrics survey platform. Confirming that our measure of overclaiming corresponds to participant beliefs about overclaiming, there was a strong, positive relationship between our measure of overclaiming and the manipulation check item, $\beta = 0.65$, SE(β) = 0.03, $t = 23.43$, $p < .001$.

compared to self-reported contribution = 6.44, $p < .001$, $d = 0.38$.[15]

Evaluations of contribution-claiming behavior. Supporting our hypothesis about evaluations (H3), there were negative relationships between perceived overclaiming behavior[16] and perceived warmth, $\beta = -0.25$, $SE(\beta) = 0.03$, $t(533.40) = -7.71$, $p < .001$, and between perceived overclaiming behavior and perceived competence, $\beta = -0.22$, $SE(\beta) = 0.03$, $t(500.44) = -7.38$, $p < .001$ (see Figure 6, Panels A-B). Moreover Table 1, Models 1-2 shows that these results hold even when controlling for the evaluator's peer rating of the group member's actual contribution; for instance, if a target group member claimed to contribute 30% but an evaluator thought they were responsible for 25%, these analyses add both overclaiming (5%) and perceived contribution (25%) as predictors. These results suggest that the negative relationships between overclaiming and these outcomes goes beyond the effect of the group member's perceived contribution level on the outcomes. Lastly, marginally supporting H5, the relationship between perceived overclaiming and warmth was marginally stronger than the relationship between perceived overclaiming and competence, $F(1, 1326.48) = 3.55$, $p = .060$, $\eta_p^2 = .003$.

Testing our two hypothesized mechanisms for why overclaiming reduces perceived warmth (i.e., because it is seen as diminishing others' contributions and prioritizing individual goals over group goals), we found positive relationships between overclaiming and perceptions of diminishing others' contribution, $\beta = 0.48$, $SE(\beta) = 0.03$, $t(404.73) = 17.20$, $p < .001$, and between overclaiming and prioritizing one's own individual goals over the group's goals, $\beta = 0.36$, $SE(\beta) = 0.03$, $t(388.20) = 12.41$, $p < .001$ (see Table 1, Models 5-6 for robustness tests). In a simultaneous mediation model, we tested whether diminishing others' contribution and

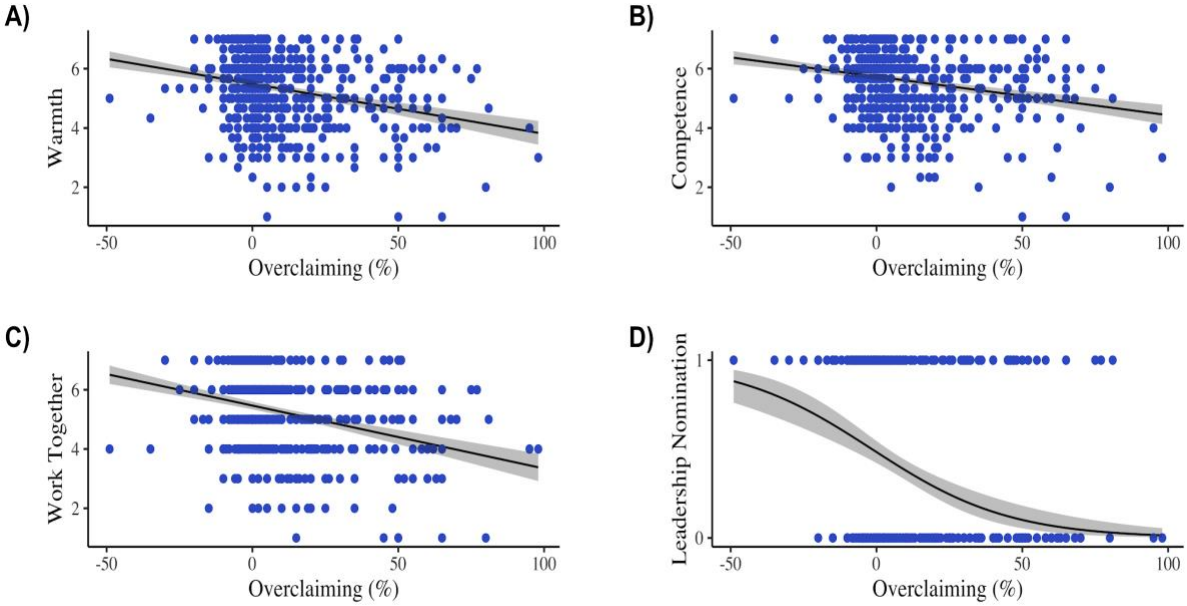
[15] Note that we did not expect participants to overclaim to appear warm. However, consistent with our hypotheses, participants overclaimed more to appear competent versus warm.

[16] The overclaiming variable represents a continuum, such that values above 0 indicate overclaiming, values below 0 indicate underclaiming, and 0 indicates accurate claiming

prioritizing individual over group goals mediated the relationship between overclaiming and perceived warmth. Indeed, supporting both H4a and H4b, the 95% CIs for the indirect effects excluded 0 (diminishing others' contributions: 95% Cluster Robust CI [-0.125, -0.032]; prioritizing own goals: 95% Cluster Robust CI [-0.124, -0.056]).

Figure 6

Bivariate Relationships between Group Member Overclaiming of Contributions and Perceived Warmth, Competence, Intention to Work Together Again, and Leadership Nomination in Experiment 3



Notes: The relationships between overclaiming and perceived warmth (Panel A), perceived competence (Panel B), intention to work together again in the future (Panel C), and leadership nomination (Panel D) in Experiment 3. The y-axis represents evaluators' survey responses on 7-point scales (endpoint labels reported in main text), with the exception of leadership nomination which was measured with "Yes" (1) or "No" (0). The x-axis represents the amount of overclaiming: values below 0 indicate underclaiming, 0 indicates accurate claiming, and values above 0 indicate overclaiming. There are more observations above 0 because there was a systematic preference for individuals to overclaim (vs. underclaim) their contributions. The bands represent the 95% confidence intervals around predicted values.

Table 1

The Relationship between Perceived Overclaiming Behavior and Outcomes of Interest in Experiment 3, Controlling for Perceived Contributions

	Dependent variable:

	Perceived Warmth	Perceived Competence	Intention to Work Together	Leader Nomination	Perceived Diminishment of Others' Contributions	Perceived Prioritization of Individual Goals
	(1)	(2)	(3)	(4)	(5)	(6)
Perceived Overclaiming Behavior	-0.207***	-0.118***	-0.200***	-0.289***	0.517***	0.346***
	(0.034)	(0.027)	(0.033)	(0.101)	(0.029)	(0.030)
Perceived Actual Contributions	0.119***	0.276***	0.218***	1.374***	0.113***	-0.057*
	(0.032)	(0.027)	(0.032)	(0.132)	(0.029)	(0.030)
Constant	0.00003	0.002	-0.004	-0.448***	-0.010	-0.002
	(0.050)	(0.049)	(0.046)	(0.095)	(0.037)	(0.042)
Observations	901	901	901	901	901	901
Log Likelihood	-1,167.763	-1,083.546	-1,154.946	-492.856	-1,130.217	-1,186.348
Akaike Inf. Crit.	2,349.527	2,181.092	2,323.892	997.711	2,274.435	2,386.696
Bayesian Inf. Crit.	2,383.151	2,214.717	2,357.517	1,026.532	2,308.059	2,420.321

Notes: Models 1-6 show the relationships between perceived overclaiming and perceived warmth, perceived competence, intention to work together again, leadership nomination, perceived diminishment of others' contributions, and perceived prioritization of individual goals while controlling for the evaluator's perception of the claimer's actual contribution to the group. All models are multilevel models with random factors for contribution-claimer, evaluator, and group. Model 4 is a logit model (binary; 1 = nominated, 0 = not nominated) while Models 1-3 and 5-6 are linear. Coefficients are standardized and the standard errors are in parentheses. * p <0.1; ** p <0.05; *** p <0.01.

Consequences of contribution-claiming behavior. We also found support for our hypotheses that overclaimers' reduced warmth makes others less likely to want to work with them again and less likely to nominate them as group leaders (H6a-b, H7a-b). There were negative relationships between perceived overclaiming behavior and intention to work together again, β = -0.28, $SE(\beta)$ = 0.03, $t(573.54)$ = -8.36, $p < .001$, as well as between perceived overclaiming behavior and leadership nomination, β = -0.71, $SE(\beta)$ = 0.13, Z = -5.63, $p < .001$. Note that because the distribution of leadership nomination was non-normal (binary; 1 =

nominated, 0 = not nominated), we used a logit model instead of a linear model. See Figure 6, Panels C-D for visualizations and Table 1, Models 3-4 for robustness tests. In two mediation models, we tested whether perceived warmth mediated the relationship between overclaiming and intention to (a) work together again and (b) leadership nomination. Indeed, supporting both H7a and H7b, the 95% CIs for the indirect effects excluded 0 (intention to work together: 95% Cluster Robust CI [-0.221, -0.116]; leadership nomination: 95% Cluster Robust CI [-0.046, -0.021]).

Path model and mediation. To examine the various possible pathways between the experimental manipulation (group members' goal to appear competent or warm) and the downstream outcomes of interest (e.g., leadership nomination) via our hypothesized indirect effects (i.e., the effect of the goal manipulation as it travels through one or more mediating variables on its way to the downstream outcome), we employed a path modeling approach.[17] We constructed the model based on our preregistered hypotheses (H1, H3, H4a, H4b, H7a, H7b). In particular, we tested whether (1) group members overclaim their contributions more to appear competent (vs. warm), which (2) subsequently leads evaluators to perceive a target group member's claim as diminishing others' contribution and prioritizing individual goals, which (3) reduces perceived warmth and (4) ultimately results in a lower intention to work together again and be nominated group leader (sequential mediation; see Figure 7). Table 2 provides the standardized coefficients and accompanying SE's, *t* values, and *p* values for the model.

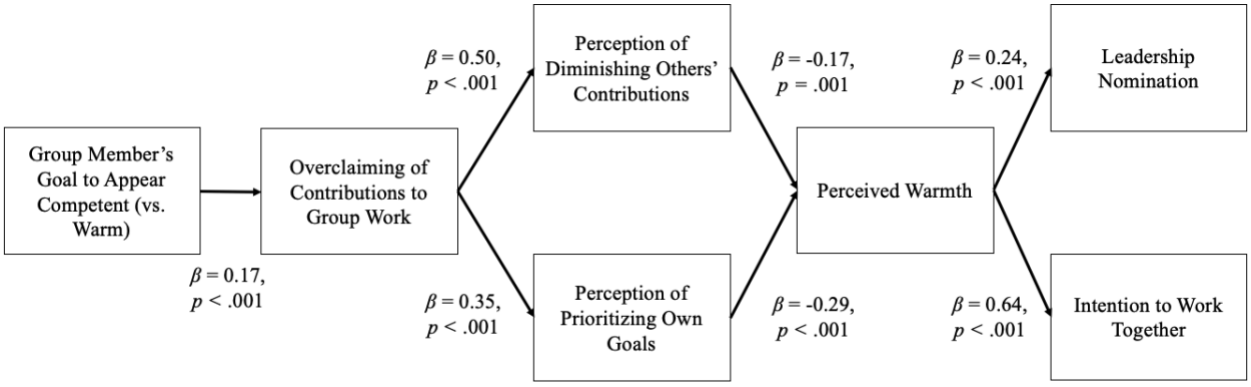
We found significant indirect effects of group members' goal to appear competent (vs. warm) on intention to work together via two pathways: (1) goal manipulation, overclaiming,

[17] The path model is an extension of the general linear model within a structural equation modeling framework, which allows researchers to simultaneously examine (potentially correlated) dependent variables and for variables to be both independent and dependent in a single analysis (Kline, 2015).

diminishing others' contribution, perceived warmth, and intention to work together, 95% CI [-0.016, -0.002], and (2) goal manipulation, overclaiming, prioritizing own goals, perceived warmth, and intention to work together, 95% CI [-0.017, -0.004]. There were also significant indirect effects of group members' goal to appear competent (vs. warm) on leadership nomination via two pathways: (1) goal manipulation, overclaiming, diminishing others' contribution, perceived warmth, and leadership nomination, 95% CI [-0.006, -0.001], and (2) goal manipulation, overclaiming, prioritizing own goals, perceived warmth, and leadership nomination, 95% CI [-0.007, -0.001]. These results provide further evidence that our experimental manipulation (i.e., group members' goal to appear competent vs. warm) influences perceived warmth and downstream consequences by affecting our theorized intermediary variables (i.e., diminishing others' contribution and prioritizing their own goals).

Figure 7

Path Model of Contribution-Claiming Behaviors and Evaluations of Contribution-Claiming Behaviors in Experiment 3



Notes: The model provided an excellent fit to the data, RMSEA = 0.02, CFI = 0.99, TLI = 0.99 (Hu & Bentler, 1999). All coefficients are standardized and, due to the multilevel nature of our data, we cluster the S.E.'s by group. Moreover, we estimate (but do not display) covariances between variables in the same temporal steps (prioritizing own goals and diminishing others' contributions, leader nomination and intention to work together). Our experimental manipulation—competence (vs. warmth) goal—is coded 1=competence goal, 0=warmth goal. Leadership nomination is coded 1=nominated, 0=not nominated.

Table 2

Standardized Coefficients, Standard Errors (S.E.s), t values, and p values for Path Model in Experiment 3

	Estimate	S.E.	t value	p value
		Overclaiming of Contributions		
Competence (vs. Warmth) Goal	0.169	0.035	4.81	< .001
		Perception of Prioritizing Own Goals		
Competence (vs. Warmth) Goal	0.026	0.038	0.69	.494
Overclaiming	0.344	0.035	9.75	< .001
		Perception of Diminishing Others' Contributions		
Competence (vs. Warmth) Goal	0.030	0.027	1.12	.261
Overclaiming	0.495	0.027	19.65	< .001
		Perceived Warmth		
Competence (vs. Warmth) Goal	0.025	0.031	0.83	.409
Overclaiming	-0.085	0.053	-1.61	.107
Prioritizing Own Goals	-0.287	0.043	-6.66	< .001
Diminishing Others' Contributions	-0.169	0.049	-3.44	.001
		Intention to Work Together Again		
Competence (vs. Warmth) Goal	0.021	0.022	0.99	.323
Overclaiming	-0.042	0.031	-1.35	.177
Prioritizing Own Goals	-0.122	0.031	-3.92	< .001
Diminishing Others' Contributions	-0.086	0.030	-3.90	.004
Perceived Warmth	0.635	0.025	25.77	< .001
		Leadership Nomination		
Competence (vs. Warmth) Goal	0.049	0.028	1.77	.077
Overclaiming	-0.121	0.040	-3.02	.003
Prioritizing Own Goals	-0.123	0.031	-4.01	< .001
Diminishing Others' Contributions	0.011	0.035	0.303	.762
Perceived Warmth	0.242	0.032	7.61	<.001

Notes: Direction of temporal order is from top to bottom, except the following variables are contemporaneous positions in the path model (patronizing own goals and diminishing others' contribution, intention to work together and leadership nomination). Our experimental manipulation—competence (vs. warmth) goal—is coded 1=competence goal, 0=warmth goal. Leadership nomination is coded 1=nominated, 0=not nominated.

While the path model shown in Figure 7 and Table 2 examines each of our hypotheses in

turn, to be thorough, we report zero-order correlation coefficients that include all of the measured variables in the Supplemental Materials.

Determining Causality: Methods and Results of Embedded Experiment

After the evaluator survey (Phase 4), we embedded an additional vignette experiment to exogenously manipulate a target group member's claimed contribution and measure resulting impressions, thus providing a causal test of how overclaiming behavior influences evaluations. We hypothesized that we would replicate prior results described earlier in this study. We asked participants to "imagine how you would feel if your group members claimed to contribute different percentages of the work" and to report their subsequent impressions. We also told participants that their group members would not see their responses. Specifically, we asked evaluators to judge a group member who claimed 10% more (overclaim condition) or 10% less (underclaim condition) than the evaluator actually thought the group member contributed (according to that evaluator's own earlier report in the survey), using a between-subjects design. For instance, if an evaluator thought a group member contributed 20% of the work, then the evaluator was reminded that they thought the group member contributed 20% of the work and either imagined that the group member claimed to have contributed 30% or 10% of the work in the overclaim and underclaim conditions, respectively. Evaluators then rated the group members' perceived warmth (α = .95) and competence (α = .95) using the same scales described in the evaluator survey above.

Consistent with the results reports above, and replicating H3, overclaimers were perceived as less warm (M = 4.65, SD = 1.36) than were underclaimers (M = 5.42, SD = 1.23), $t(712.07) = -10.48$, $p < .001$, $d = -0.59$. There were no differences in perceived competence between overclaimers (M = 5.10, SD = 1.26) and underclaimers (M = 5.00, SD = 1.38), t(652.29)

= 1.51, p = .131, d = 0.04. Supporting H5, the overclaim vs. underclaim manipulation influenced perceptions of warmth more than perceptions of competence, $F(1, 1336.6) = 109.05$, $p < .001$, $\eta_p^2 = .08$.

Discussion

Experiment 3 mirrors real group work in organizational settings, allowing us to test our hypotheses with greater external validity. These results demonstrate that group members overclaim to appear competent more than warm, but evaluators perceive overclaimers (vs. accurate claimers and underclaimers) as less warm—and less competent. Our hypotheses were supported even though participants were both contribution-claimers and evaluators in this study, giving them a chance to potentially reconsider the value of overclaiming and realize that it could have negative consequences. Thus, this study provides a particularly conservative test of our hypotheses; the fact that group members still overclaimed to appear more competent suggests that overclaiming is a persistent mistaken strategy. We also document the organizational consequences of group members' overclaiming of contributions: evaluators were less interested in working with overclaimers and less likely to nominate overclaimers to be leaders for a future group task, a nomination which came with an attractive financial bonus.

Our additional experiment embedded at the end of the study further increases our confidence that contribution claims causally influence evaluations in this context. The additional experiment showed similar results to what we observed in the primary experiment, with one exception: overclaiming group members were evaluated as less competent in the primary experiment, but not significantly less competent in the additional embedded experiment. In all experiments reported in this paper, however, we found that overclaiming more strongly influenced perceptions of warmth than perceptions of competence, consistently supporting H5.

Thus, while overclaiming has a robust, negative effect on perceptions of warmth (H3), overclaiming has a relatively weaker effect on perceptions of competence (H5). In this way, overclaiming one's contributions is a mistaken impression-management strategy because it harms impressions of warmth more than it benefits impressions of competence.

General Discussion

When trying to appear competent, group members often claim to have contributed more to group work than they actually did—but is this strategy of "overclaiming" effective? Results from studies in the current paper indicate that it is not. More precisely, the intended impression-boosting benefits of overclaiming contributions did not comport with the reality that overclaiming one's contributions, compared to accurately claiming or underclaiming one's contributions, tended to harm impressions. This paper sheds light not only on why people deliberately overclaim their contributions in group settings but also on the consequences of overclaiming for others' impressions and subsequent behavior toward the overclaiming group member, thus uniquely testing a "full cycle, actor-observer" model that assesses both contribution-claiming behaviors and the consequences of those behaviors. Whereas prior research has examined related impression management strategies like bragging or humility, or tested consequences of overclaiming contributions, ours is the first to demonstrate a persistent asymmetry between expected and actual evaluations of contribution-claiming behavior, one that is so persistent that it occurs even when claimers are also serving as evaluators.

The current paper also provides insight into the psychological reasons for *why* people engage in certain types of contribution-claiming behavior and their evaluations of those behaviors. When group members were trying to appear competent, compared to warm, they tended to engage in more instrumental thinking and consequently were more likely to overclaim

their contributions. But when group members evaluated a target member who overclaimed their contributions, they viewed the overclaim as diminishing others' apparent contributions and prioritizing the target member's individual goals over the group's goals. This led evaluators to perceive the overclaiming group member as significantly less warm than group members who accurately claimed or underclaimed their contributions. Overclaiming contributions not only reduced others' perceptions of the target member's warmth, but also did not meaningfully improve perceptions of their competence—across our experiments, overclaiming either reduced perceived competence (Experiment 2, primary Experiment 3) or had no measurable effect on perceived competence (Experiment 1b, embedded survey in Experiment 3). And, as predicted, reductions in warmth were consistently more significant than any change in perceptions of competence (H5). Seven more supplemental experiments, described in Table 3, further demonstrate the robustness of these results. The negative evaluations of group members who overclaim their contributions had meaningful consequences: group members were less likely to want to work with them again or to nominate them for desirable leadership positions. Taken together, our results suggest that overclaiming one's contributions to group work is a surprisingly common but woefully mistaken impression management strategy used in groups.

Table 3

Summary of Supplemental Experiments Reported in Supplemental Materials

Supplemental Experiment	Sample	Context	Design	Purpose	Main Findings
Supplemental Experiment S1 (*N*=162)	Undergraduate students	Dyadic negotiation	Between-subjects manipulation of claiming behavior (overclaim, underclaim, accurate claim)	Test whether claiming behavior affects evaluations of warmth and competence in a collaborative negotiation interaction.	Participants rated overclaimers as less warm and no more competent than underclaimers or accurate claimers.

Supplemental Experiment S2 (*N*=564)	MTurk adults	Workgroup simulation	Between-subjects manipulations of status (supervisor, worker) and claiming behavior (overclaim, underclaim, equal claim, unknown claim)	Test whether the effect of claiming behavior on evaluations is moderated by the status of the evaluator (supervisor or worker).	The effect of overclaiming (vs. underclaiming) on perceived warmth and willingness to work together was reduced when the evaluator is high (vs. low) in status.
Supplemental Experiment S3 (*N*=569)	MTurk adults	Workgroup simulation	Identical to Supplemental Experiment S2	Test whether the effect of claiming behavior on evaluations is no longer moderated by the status of the evaluator (supervisor or worker) when the evaluator thinks each group member contributed equally.	In contrast to Supplemental Experiment S2, the status of the evaluator did not moderate the effect of overclaiming (vs. underclaiming) on perceived warmth and willingness to work together when it was made clear each group member contributed an equal amount.
Supplemental Experiment S4 (*N*=100)	Prolific Academic Adults	Workgroup simulation	Between-subjects manipulations of contribution ambiguity (high, low) and claiming behavior (overclaim, underclaim, accurate claim)	Test whether the effect of claiming behavior on evaluations is moderated by whether evaluators know each person's contribution to the group (high or low ambiguity regarding their contributions).	The effects of overclaiming vs. underclaiming contributions on perceived warmth and competence were eliminated when there was high ambiguity about each group member's true contribution.
Supplemental Experiment S5 (*N*=103)	Undergraduate students	Recall past school project team	Within-subjects manipulations of contribution (high, low) and claiming behavior (overclaim, underclaim, accurate claim)	Test whether the target group member's actual level of contribution (high or low) moderates the effect of claiming behavior on evaluations.	The effect of overclaiming vs. underclaiming contributions on perceived warmth and willingness to work together was amplified when the target group member's contribution was high (vs. low).
Supplemental Experiment S6 (*N*=399)	MTurk adults	Workgroup simulation	Between-subjects manipulations of contribution	Conceptually replicate the moderation results	The effect of overclaiming vs. underclaiming

			(high, low) and claiming behavior (overclaim, underclaim)	from Supplemental Experiment S5.	contributions on leadership evaluations was eliminated when the target group member's contribution was low (vs. high).
Supplemental Experiment S7 (*N*=202)	MTurk adults	Workgroup simulation	Between-subjects manipulation of perspective (claiming, evaluating)	Conceptually replicate Experiment 2 and generalize to a new vignette.	Replicating Experiment 2, individuals overclaimed more to appear competent (vs. warm).

Theoretical Implications

Our findings offer several theoretical implications. First, we contribute to impression management theory by identifying a mistaken self-presentation strategy: overclaiming contributions to group work. Prior research suggests that, to achieve fundamental needs such as feeling like one belongs and feeling respected (e.g., Anderson et al., 2015; Baumeister & Leary, 1995), people engage in an array of self-presentation tactics (e.g., Jones & Pittman, 1982; Leary & Kowalski, 1990). Indeed, many of these tactics can be effective in achieving one's self-presentational goal, such as using flattery or praise to elicit liking (e.g., Baumeister & Ilko, 1995; Tetlock, 1980; Vonk, 2002). Our research adds to a growing literature that identifies ineffective self-presentation tactics that systematically backfire in the eyes of others (e.g., Gino et al., 2020; Roberts et al., 2020; Scopelliti et al., 2015; Sezer et al., 2017). We extend prior findings by specifically examining a common self-presentation tactic (overclaiming one's contributions) that has meaningful consequences for outcomes (e.g., leadership emergence) in organizational contexts.

Another way in which we build on prior findings is to identify an actor-observer asymmetry, studying not just the observers who evaluate different self-presentation strategies but also the actors who implement the strategies. Previous research has typically focused on one perspective or the other; for instance, previous research has shown that humility and modesty are

generally valued and liked more than boastfulness (e.g., Bond et al., 1982; Brickman & Seligman, 1974; Cialdini & DeNicholas, 1989; Forsyth et al., 1981; Ridge & Ingram, 2017), but has not systematically examined people's beliefs about how others will view them when they engage in such behaviors. By studying contribution-claimers and evaluators who are part of the same group, within the same study, we investigate both when people overclaim their contributions and why it is ineffective (see Figure 1 for our theoretical model). We also show that the actor-observer bias is so strong with respect to overclaiming that even when claimers know they will also be evaluators, they overclaim to appear competent and neglect to consider how others will see them as less warm for doing so, but that they still judge others who overclaim as less warm and no more competent.

We add to impression-management theory by distinguishing *how much* someone claims to contribute from *how* someone claims. While overclaiming and underclaiming concern whether a target individual's contribution claim is calibrated with reality or not, modesty and boastfulness conflate the accuracy of a target individual's claims with how the target individual makes the claim. For instance, displays of humility include expressing gratitude and avoiding others (e.g., Weidman et al., 2016), behaviors which can co-occur with both overclaiming and underclaiming contributions. Our experimental manipulations stripped away the stylistic elements of how claims are communicated, allowing us to determine how much a target individual claims to contribute (relative to how much others think they contributed) affects consequential interpersonal perceptions and organizational outcomes such as leadership emergence. Although behaviors like boastfulness or modesty often naturally occur with overclaiming and underclaiming contributions, the accuracy of the claim and how the claim is communicated can be theoretically distinguished. We thus view constructs such as modesty and boastfulness as

potential moderators of our effects that could usefully be examined in future research.

Our research augments knowledge of overclaiming by identifying novel antecedents and consequences of overclaiming in groups. Overclaiming has been studied extensively in the psychological literature (e.g., Leary & Forsyth, 1987; Ross & Sicoly, 1979), with much attention paid to the mechanisms that create it (e.g., Schroeder et al., 2016). Although overclaiming can be inadvertent, such that people believe they reported their true contribution even though they actually reported more than they contributed (Kruger & Gilovich, 1999; Putnam et al., 2018), we examine deliberate overclaiming whereby people know that their statement exaggerates their true contribution. We enrich the scientific understanding of overclaiming by examining how fundamental impression management goals, namely the desire to appear warm or competent, can influence the tendency to deliberately overclaim one's contributions. Understanding the determinants of overclaiming in groups matters because, as we demonstrate, overclaiming has downstream consequences for team viability and leadership emergence. Thus, our findings shift the focus from the predictors of overclaiming to the interpersonal and organizational consequences of these behaviors for individuals and workgroups.

Future Directions and Limitations

Our research is subject to several limitations that present opportunities for future research. First, future research could explore whether there are any contexts in which claiming to contribute more than one actually did allows one to reap interpersonal benefits rather than the interpersonal costs we found here. We document that group members mistakenly believe that overclaiming will increase their interpersonal perceptions in face-to-face, cooperative groups, in which evaluators have a sense of each person's unique contribution to the group output. In contexts where evaluators do not have a sense of each person's unique contribution, however,

claiming to have contributed more than one did might not be seen as inaccurate but instead as true, and, further, as impressive. It is possible that a group member who deliberately overclaims their contributions—as long as evaluators do not recognize it as overclaiming—could increase evaluators' perceptions of their competence. We tested this possibility in Supplemental Experiment S4 (see Table 3 for summary), finding that a group member who overstated (versus understated) their contributions was seen as more competent when evaluators did not know that group member's true contributions. This finding is consistent with Tenney and colleagues' (2019) research showing that individuals who are overconfident are seen as less competent if it is easier to detect whether they are being overconfident, but they are seen as more competent if it is harder to detect whether they are being overconfident. Future research could thus test whether contribution-claimers overgeneralize the positive effects of overstating their contributions in domains where it is hard to evaluate their true contributions to domains where it is easier to evaluate their true contributions (and overclaiming is less effective).

Second, future research could test the effectiveness of various types of contribution claims for improving interpersonal impressions. Based on the results of Pilot Study A, we tested both quantitative contribution claims (e.g., claiming to have contributed a high or low percentage of the work) and qualitative contribution claims (e.g., claiming to have contributed a lot or a little). However, there are many types of contribution claims that we did not test. Specifically, we focused on what a group member claimed to contribute instead of how, stylistically, they express the claim. Thus, another area to explore is how overclaiming or underclaiming one's contributions using different behavioral styles influences impressions (e.g., claim conveyed in a humble or boastful tone, claim conveyed in a happy or sad tone). For example, based on prior research, it is possible that overclaiming contributions while boasting would reduce impressions

more than overclaiming while being humble. Research could even expand the list of behaviors by considering how various emotions temper or accentuate claims such as overclaiming by expressing humor or underclaiming with anger (Kilduff et al., 2010). Moreover, future research could investigate the personality attributes and behaviors that are associated with overclaiming one's contributions. For instance, Anderson and Kilduff (2009) demonstrated that dominant individuals engage in more competence-signaling behaviors (e.g., providing answers to problems), which increased influence and prominence in a group. Future research could explore if and when overclaiming contributions results in more competence-signaling behaviors, with downstream consequences for interpersonal evaluations.

A third area for future work could be to deepen scientific understanding of the mechanisms for why—when trying to appear competent—people prefer to overclaim contributions for group tasks. Our studies provide evidence for one reason for why people overclaim, because the competence goal makes them engage in more instrumental thinking. An additional possibility is that people do not receive sufficient feedback on the negative interpersonal consequences of overclaiming contributions in their daily lives. Claimers seem to be unaware of overclaiming's lack of efficacy, even though they are also evaluators at least some of the time (e.g., in life in general). The preference to overclaim to appear competent might be based on miscalibration that would be alleviated with feedback, learning, and experience. Do people learn about the overclaiming penalty when they see the consequences of overclaiming? Future research may benefit from exploring the frequency and consequences of overclaiming in long-term intact teams to test whether, over time, contribution claims become more calibrated, and overclaiming contributions becomes rarer, because people learn about overclaiming's lack of efficacy.

Finally, future research could explore additional moderators and organizational consequences of contribution claims. In the Supplemental Materials, we test whether gender moderates the tendency to overclaim contributions to appear competent (vs. warm) and/or moderates reactions to overclaiming group members. Although prior work has shown that women (vs. men) are less likely to claim credit for work (e.g., Haynes & Heilman, 2013), and that women (vs. men) face greater backlash for engaging in self-promotion (e.g., Rudman et al., 2012), we did not find consistent evidence that gender moderates contribution-claiming behavior or evaluator perceptions of such behavior across our studies (see Gender Analysis in Supplemental Materials for more details). Future work could more systematically explore when gender, as well as whether other individual differences (e.g., personality traits such as narcissism), influence contribution-claiming and evaluator reactions. In our seven supplemental experiments, we explore additional moderators of evaluations of contribution-claims, including hierarchical position and actual contribution level. Future research could also explore when people prefer to underclaim contributions, relative to accurately claim contributions. In terms of consequences, we identify two in the current paper: overclaimers reduce team viability and are less likely to emerge as a leader. Given that hierarchy in organizations is pervasive (e.g., Magee & Galinsky, 2008) and individuals who occupy leadership positions enjoy numerous social and health benefits (e.g., Anderson et al., 2012), group members who are seen as overclaiming their contributions—and are thus less likely to emerge as leaders—may encounter declines in health and well-being in the long term. Moreover, future research could explore how organizational leaders that take credit for their subordinates' accomplishments influence organizational outcomes such as employee tenure and commitment (e.g., O'Reilly et al., 2020; Rodgers et al., 2013).

Practical Implications

Our research offers insights to managers as well. As organizations become more reliant on teams for accomplishing tasks, our research suggests that managers could support group members in accurately calibrating their own contributions, perhaps by enlightening them about the negative consequences of overclaiming. Prior research has highlighted some means by which to do this, for instance asking employees to first record the contributions of their group members before considering their own contributions (e.g., Caruso et al., 2006; Schroeder et al., 2016). Managers should design their team's reporting practices recognizing the tradeoffs in sharing contribution claims publicly as it can make group members less willing to continue working together. Future research could extend these findings by investigating whether having group members publicly acknowledge other members' contributions (e.g., at the beginning of group meetings), rather than acknowledge their own contributions, can improve group dynamics.

Conclusion

The motive to establish a favorable image in the eyes of others is a powerful driver of human behavior. We offer psychological insight into a common yet ineffective strategy to garner positive impressions—overclaiming one's contributions to group work. We show that—when trying to appear more competent than warm—group members are more likely to overclaim their contributions. Yet we also show that when group members overclaim their contributions, compared to accurately claiming or underclaiming their contributions, it makes them appear less warm and no more competent, and that their peers are less likely to want to work with them again or to nominate them as team leaders. When deciding how to state their contributions to the group's work, group members who hope to enhance their interpersonal impressions would be wise not to overclaim their contributions.

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SUPPLEMENTAL MATERIALS

Experiments 1-3 Additional Analyses: Gender

Given that prior work has shown that women (vs. men) are less likely to claim credit for work (e.g., Deaux & Emswiller, 1974; Haynes & Heilman, 2013; Heilman & Haynes, 2005; Sarsons, 2017), and that women (vs. men) face backlash for engaging in self-promotion (e.g., Rudman et al., 2012), we report whether: (1) women (vs. men) are less likely to overclaim their contributions in Experiments 1a, 2, and 3, and (2) women (vs. men) face more severe interpersonal perceptions for overclaiming contributions in Experiment 3. First examining how gender influences contribution claims, in Experiment 1a, men and women did not differ in the tendency to overclaim to appear competent, $p = .670$, $d = 0.12$, or warm, $p = .516$, $d = 0.18$. In Experiment 2, men (vs. women) were marginally more likely to overclaim to appear competent, $p = .079$, $d = 0.25$, but there were no differences between men and women in overclaiming to appear warm, $p = .255$, $d = 0.16$. Finally, in Experiment 3, women overclaimed more to appear warm than men, $p = .019$, $d = 0.15$, but there was no difference between overclaiming to appear competent between women and men, $p = .187$, $d = 0.08$. In Experiment 3, when combining contribution claims to be warm and competent, women overclaimed more than men, $p = .012$, $d = 0.11$.

Next examining how gender influences evaluations of contribution-claims, in Experiment 3, target gender did not moderate reactions to overclaiming in terms of warmth judgments, β = 0.03, p = .783, or competence judgments, β = -0.02, p = .801.

Overall, we find little consistent evidence that gender moderates contribution-claiming behavior or evaluations of contribution-claiming behavior. However, we think this is an interesting question for future research to systematically explore. For instance, in Experiment 3, 75% of our sample identified as female, which makes it a conservative test of whether men overclaim more than women (due to men being in the numerical minority).

Experiment 1a Additional Measures and Results

Additional experimental condition. In addition to the warmth-goal and competence-goal conditions, we asked participants what they would "tell another person that they personally contributed to the story" to "get the person to want to work with you in the future," measuring the participant's goal of attracting future teammates (*attract-teammates-goal condition*). We asked questions regarding the attract-teammates-goal after questions regarding the warmth- and competence-goals. The results for this condition showed that, to satisfy the goal to attract teammates, participants reported they would claim M = 58.58% (*Median* = 55%, SD = 14.63%). Subtracting participants' claimed contribution from their self-reported contribution indicates that participants deliberately overclaimed to attract teammates, *one-sample t(57) against 0%* = 3.01, p = .003, d = 0.40.

Additional contribution claim measures. In addition to simply stating the percentage amount that they would claim, participants further responded to the following questions to measure how much they would overclaim, underclaim or accurately claim their contributions to be seen as [warm/ competent]: "If you really want the person to [like you/think you are smart

and hard-working], how much would you tell the person that you contributed toward making the story?" with the following three items: (1) "I would say I did EXACTLY 50%"; (2) "I would say I did MORE than 50%"; (3) "I would say I did LESS than 50%" (1 = *definitely not*, 7 = *definitely*). We selected the anchor of 50% (to separate overclaiming, accurate claiming, and underclaiming) because it is a normative standard for equality within a dyad, and the task was designed to have such that each person would contribute about 50%.

We observed consistent results on these measures as on the more direct contribution-claiming measure reported in the main text. Supporting H1, participants reported a higher likelihood that they would overclaim (i.e., claim "MORE than 50%") to appear competent (M = 4.05, SD = 1.82) than to appear warm (M = 3.33, SD = 1.95), $t(57) = 2.41$, $p = .019$, $d = 0.32$. In contrast, participants reported a higher likelihood that they would underclaim (i.e., claim "LESS than 50%") to appear warm (M = 2.57, SD = 1.71) than to appear competent (M = 2.05, SD = 1.53), $t(57) = -2.00$, $p = .050$, $d = -0.26$. Likewise, participants reported a higher likelihood of accurate claiming (i.e., claim "EXACTLY 50%") to appear warm (M = 4.84, SD = 1.85) than to appear competent (M = 4.26, SD = 1.89), $t(57) = -2.20$, $p = .032$, $d = -0.29$. These results again indicate that participants overclaim to appear competent (vs. warm), but do not accurately claim or underclaim to appear competent (vs. warm), supporting H1. We additionally examined participants' reported likelihood of overclaiming, underclaiming, and accurately claiming their contributions for the goal of attracting future teammates. We found that participants reported they would overclaim (M = 3.90, SD = 1.80) more than underclaim (M = 2.05, SD = 1.49), $t(57) = 5.21$, $p < .001$, $d = 0.68$, to attract teammates. However, participants reported the highest likelihood of accurate claiming (i.e., saying that they did exactly 50% to attract teammates: M = 4.71, SD = 1.84) compared to overclaiming, $t(57) = 1.98$, $p = .052$, $d = 0.26$, or underclaiming,

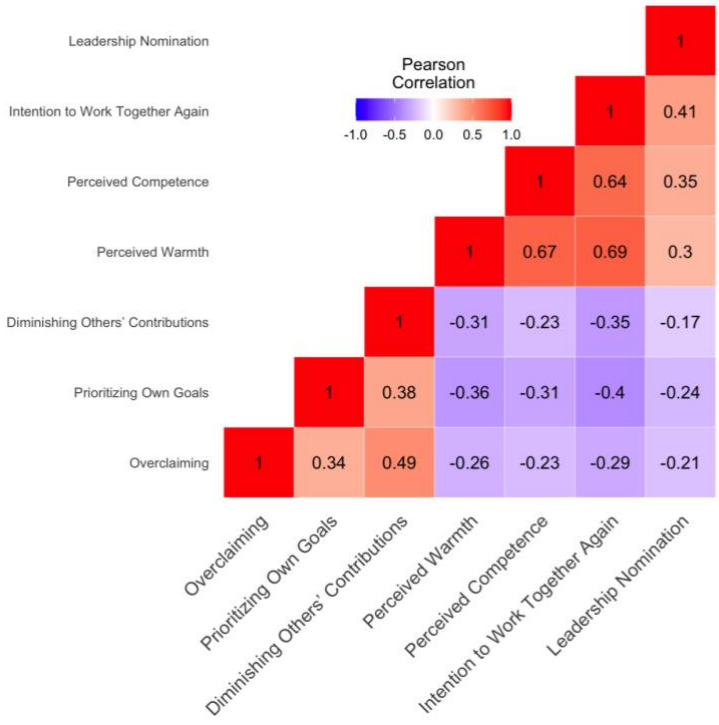
$t(57) = 7.97$, $p < .001$, $d = 1.04$.

Note that we did not report results from this alternative contribution-claiming measure in the main text for two reasons: (1) responses on this measure are more difficult to interpret given that participants could report that they "definitely" overclaimed, underclaimed, and accurately claimed, at the same time; (2) the measure assumes deviations from claims of 50% of work contributed represent overclaiming or underclaiming contributions, which is not the case for all participants; and (3) the results are consistent with the other measure, so we preferred to shorten the main text.

Experiment 3 Additional Measures and Results

Supplemental Figure S1

Zero-Order Correlations in Experiment 3



After completing the Embedded Experiment, we asked participants "what percentage would you claim to contribute, if you had an opportunity to make a new [contribution claim]?"

We were interested in whether participants would desire to accurately claim or underclaim (compared to overclaim) their contributions after evaluating others. Results suggest that our participants did not learn (in aggregate) that overclaiming contributions is a mistaken impression management strategy: compared to what claimers actually thought they contributed without an impression-management goal (M = 22.86%, SD = 8.08%), claimers indicated they would claim slightly more if given the opportunity to make a new claim (M = 24.38%, SD = 8.85%), *one-sample t-test against 22.86%* $t(263) = 2.05$, $p = .041$, $d = 0.17$. It is possible that participants, after seeing the claims of group members, learned that there was a norm to overclaim contributions and adjusted their future claiming behavior accordingly.

In Experiment 3, we used group members' private self-reported beliefs about (1) their own contribution (self-rating) and (2) others' contributions (peer-ratings) as our two comparison standards to judge whether an individual overclaims, underclaims, or accurately claims from their own perspective and from the evaluators' perspective, respectively. If we use aggregated peer ratings (instead of self-ratings) to compute overclaiming behavior and examine predictors of overclaiming, we find similar results to those reported in the main text: group members overclaimed to appear competent (M = 10.51%, SD = 15.98%), *one-sample t-test* $t(263) = 10.68$, $p < .001$, $d = 0.66$, and to appear warm (M = 5.83%, SD = 15.08%), *one-sample t-test* $t(263) = 6.28$, $p < .001$, $d = 0.39$, but there was more overclaiming to appear competent than warm (H1), *paired t-test* $t(263) = 7.06$, $p < .001$, $d = 0.30$.

Moreover, if we use self-ratings (instead of peer-ratings) to compute overclaiming behavior and examine evaluations of overclaiming, we also observe the same pattern of results reported in the main text (see Supplemental Table S1).

Supplemental Table S1

Evaluating Results with Alternative Measure of Perceived Overclaiming

	Dependent variable:					
	Perceived Warmth	Perceived Competence	Intention to Work Together	Leader Nomination	Perceived Diminishment of Others' Contributions	Perceived Prioritization of Individual Goals
	(1)	(2)	(3)	(4)	(5)	(6)
Overclaiming Behavior	-0.213***	-0.161***	-0.232***	-0.519***	0.468***	0.338***
	(0.034)	(0.030)	(0.035)	(0.118)	(0.029)	(0.030)
Constant	0.008	0.022	0.009	-0.406***	-0.006	-0.005
	(0.051)	(0.052)	(0.049)	(0.115)	(0.038)	(0.042)
Observations	901	901	901	901	901	901
Log Likelihood	-1,179.900	-1,136.305	-1,183.886	-571.706	-1,142.102	-1,193.859
Akaike Inf. Crit.	2,371.799	2,284.611	2,379.773	1,153.411	2,296.203	2,399.719
Bayesian Inf. Crit.	2,400.620	2,313.432	2,408.594	1,177.429	2,325.025	2,428.540

Notes: All models are multilevel models with random factors for contribution-claimer, evaluator, and group. Model 4 is a logit model (binary; 1 = nominated, 0 = not nominated) while Models 1-3 and 5-6 are linear. Coefficients are standardized and the standard errors are in parentheses. * p <0.1; ** p <0.05; *** p <0.01.

Supplemental Experiment S1: Evaluations of Contribution-Claims in a Negotiation Task

To replicate the causal effect of overclaiming, accurate claiming, and underclaiming on impressions in a realistic work setting, we assigned individuals to work with a confederate who always completed the same amount of work but either overclaimed, accurately claimed, or underclaimed contributions for their work. We designed the task so that the confederate did about half of the work; the participant and confederate analyzed a negotiation case to determine the most mutually beneficial solution for the case. We then measured how claiming behavior influenced impressions and willingness to work together in the future.

Method

We pre-registered our experimental design and hypotheses on OSF (https://osf.io/2ng7e/?view_only=494120933c9e4c3d81778f5dcd4ca443).

Participants. We predetermined 50 participants per each of three between-subjects conditions for this study, or 150 in total. In total, we recruited 162 participants from a West Coast university (68 male, 94 female; M_{age} = 21.27, SD_{age} = 2.14) who received course credit as compensation for participation.

Design. The experimental design was three between-subjects conditions: overclaim (claiming 70%), underclaim (claiming 30%), and accurate claim (claiming 50%). We specifically selected more extreme percentages (e.g., 70% instead of 60%) to ensure that participants would encode the claim as being an overclaim or underclaim, strengthening our manipulation.

Procedure. For the task, participants reviewed a short negotiation case ("The Job Search"; Fishbach, 2013) with a confederate in the lab. The case involves negotiating a job offer between a new recruit and a hiring manager (the person that the recruit would report to if hired). The new recruit and boss negotiate on three issues: the salary, start date, and location of the new job. Instead of trying to maximize their own points in the negotiation, participants were instructed to "maximize their joint points – you are not trying to 'win' but rather to come up with the best solution collectively." Participants had ten minutes to read the negotiation case, discuss it with the confederate, and come up with a solution that would maximize joint points. We randomly assigned the participant to think more about either the role of the new recruit or boss in the case (and the confederate received the other role). The confederate was blind to experimental conditions and hypotheses during this experiment. Participants did not know that the confederate was a research assistant. Throughout the negotiation, the confederate followed a script to ensure that there was little variance in how he or she acted during each session.

Following the negotiation, the experimenter asked each participant to "write down how much you think you contributed to the task today" from 0-100% on a sheet of paper. While the

confederate ostensibly recorded the same information, in reality, the experimenter wrote the contribution amount onto the confederate's survey based on the experimental condition to which the participant was assigned, ensuring that the confederate was blind to condition. We randomly assigned participants to one of three conditions: having an overclaiming partner, an accurate claiming partner, or an underclaiming partner. The experimenter then announced that, "In the spirit of transparency and open communication, I will now let each of you see what the other person claimed to have done for this project." The experimenter showed the participants what they had written on the piece of paper, with the key contribution claim highlighted in yellow by the experimenter. Finally, each person completed a post-task questionnaire in which they were explicitly assured, "Your partner will not see your answers to the post-task survey."

Materials (Survey). As an attention check, we asked participants to recall their partners' claimed percent contribution ("What percent of the work did your partner claim to have done for the task?"). As our primary survey measures, participants assessed their partner's *warmth*: "How do you feel toward your partner?" (1 = *strongly dislike*, 7 = *strongly like*), their partner's *competence*: "How smart do you think your partner is?" (1 = *not at all*, 7 = *very smart*), and their own *feelings about working* with their partner again in the future: "How would you feel about working with your partner again in the future?" (1 = *very negative*, 7 = *very positive*).

We further collected exploratory measures about participants' own contributions to the collective output ("What percent of the work did you claim to have done for the task?") and how much work they believed that their partner completed ("What percent of the work do you think your partner actually did for the task?") on a continuous scale (0% to 100%). We also collected exploratory measures examining participants' other perceptions of their partner: (1) "If you had to work with your partner again, how fairly do you think they would treat you?"; (2) "If you had

to work with your partner again, how hard would you personally work on the next project?"; (3) "If you had to work with your partner again, how hard do you think they would work on the next project?"; (4) "If you had to work with your partner again, how high quality do you think the final product would be?" on 7-point scales (α = .81). Additionally, we collected exploratory measures relating to perceived confidence ("How confident do you think your partner is?"), humbleness ("How humble do you think your partner is?"), and arrogance ("How arrogant do you think your partner is?"), measured on 7-point scales (1 = *not at all*, 7 = *very*).

Results

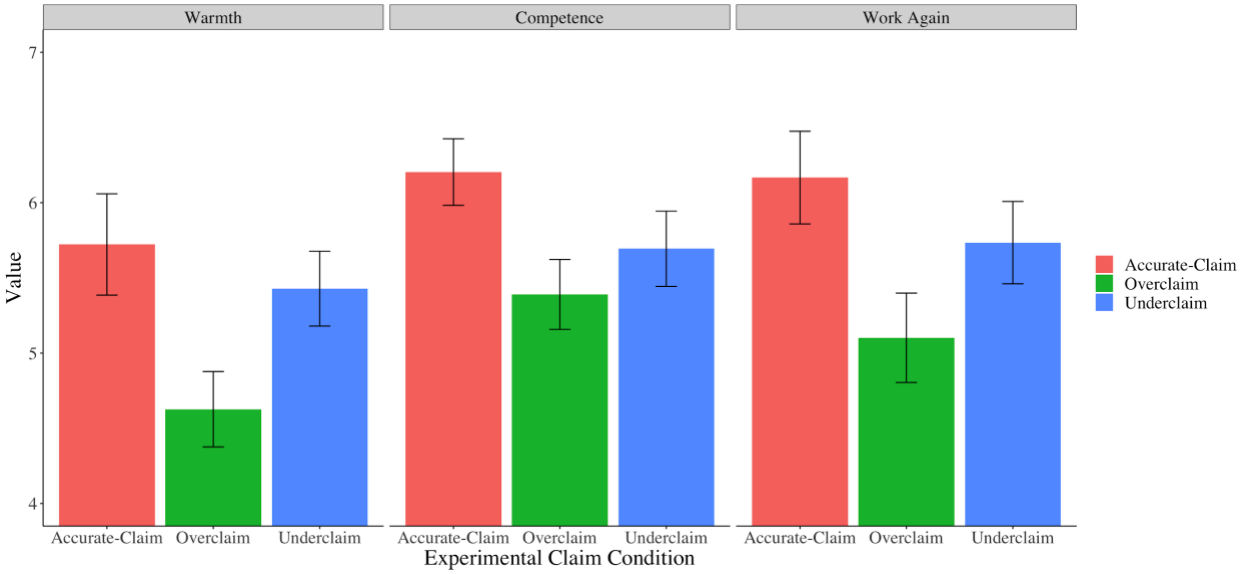
There were significant main effects of contribution claims on warmth, competence, and work together (one-way ANOVAs), *Fs*(2, 159) = 16.99, 12.84, and 13.86, *ps* < .001, η_p^2 = 0.17, 0.14, and 0.15. Supporting our hypothesis, participants perceived an overclaiming partner (*M* = 4.63, *SD* = 0.96) as less warm than an underclaiming partner (*M* = 5.43, *SD* = 0.86), *t*(159) = 4.00, *p* < .001, *d* = 0.87. Participants also felt less positively about working together again in the future with an overclaiming (*M* = 5.10, *SD* = 0.95) compared to an underclaiming partner (*Ms* = 5.73, *SD* = 0.95), *t*(159) = 3.02, *p* = .002, *d* = 0.60. Participants also perceived the overclaiming partner to be marginally less competent (*M* = 5.39, *SD* = 0.89) than the underclaiming partner (*M* = 5.69, *SD* = 0.87), *t*(159) = -1.83, *p* = .068, *d* = -0.35 (see Supplemental Figure S2). Moreover, the effect of overclaiming (vs. underclaiming) contributions on perceived warmth remained significant when controlling for the participant's judgment of the confederate's contribution, *t*(153) = -3.94, *p* < .001. However, participants had the most positive evaluations of a partner who accurately claimed (on warmth, competence, and working together; *Ms* = 5.72, 6.20, and 6.17, *SDs* = 1.23, 0.81, and 1.13, respectively), compared to an overclaiming partner: *ts*(159) = 5.61, 5.03, and 5.22, *ps* <.001, *ds* = 0.99, 0.96, and 0.94; compared to an underclaiming partner:

ts(159) = 1.43, 3.01, and 2.02, *ps* = .152, .003, and .045, *ds* = 0.28, 0.60, and 0.41.

Notably, there was no effect of experimental claim condition on participants' self-reported contribution, $F(2, 158) = 2.08$, $p = .127$, and perceived partner contribution, $F(2, 154) = 1.18$, $p = .307$, suggesting our experimental manipulation did not influence perceptions or actual work accomplished during the interaction. This finding eliminates the possibility that the claim manipulation influenced perceptions of actual work.

Supplemental Figure S2

Effect of Experimental Condition (Three Conditions: Accurate Claim, Overclaim, Underclaim) on Perceived Warmth, Competence, and Willingness to Work Together Again in Supplemental Experiment S1



Notes. The y-axis represents participants' survey responses on 7-point scales. Error bars represent the 95% confidence intervals around the mean.

Subsidiary analyses. Robustness analyses indicated that there was no main effect of role randomization on the dependent measures of interest, *ps* > .108, nor did role interact with experimental condition on the dependent measures, *ps* > .739. There was also no effect of confederate (i.e., which person was playing the confederate role; *ps* > 527) or interaction of confederate and experimental condition (*ps* > .742) on the dependent measures, suggesting that the effect of condition did not depend on which person played the confederate role.

Participants rated the underclaimer as more humble (*M* = 5.36, *SD* = 1.30) and higher on the composite index of other perceptions (*M* = 5.71, *SD* = 0.81; e.g.,"If you had to work with your partner again, how fairly do you think they would treat you?") than the overclaimer (*M* = 3.92 and 5.30, *SD* = 1.23 and 0.86), *ts*(159) = 5.86 and 2.46, *ps* <.001, *ds* =1.14 and 0.49, while the accurate claiming partner did not significantly differ from the underclaiming partner on the humility and perceptions index (*M* = 5.50 and 6.03, *SD* = 1.31 and 0.89, *ts*(159) = 1.12 and 1.91, *ps* = .600 and .058, *ds* = 0.09 and 0.37; one-way ANOVAs on humility and the perceptions index: *Fs*(2, 159) = 26.55 and 10.34, η_p^2 = 0.25 and 0.11).

Additionally, participants perceived the overclaimer to be more arrogant (*M* = 3.52, *SD* = than the underclaimer (*M* = 2.40, *SD* = 0.97) and accurate claimer (*M* = 2.16, *SD* = 1.02), *ts*(159) = 5.31 and 6.63, *ps* < .001, *ds* = 1.01 and 1.21 (one-way ANOVA: *F*(2, 159) = 25.17, η_p^2= 0.24). The accurate claimer (*M* = 6.05, *SD* = 0.83) was perceived as more confident than the overclaimer (*M* = 5.41, *SD* = 0.98) and underclaimer (*M* = 5.35, *SD* = 1.16), *ts*(159) = 3.45 and 3.60, *ps* < .001, *ds* = 0.71 and 0.70 (one-way ANOVA: *F*(2, 159) = 8.31, *p* < .001, η_p^2 = 0.09).

Discussion

In Supplemental Experiment S1, group members who overclaimed their contributions were perceived to be less warm and marginally less competent than were those who underclaimed or accurately claimed their contributions. We observed this effect in a context in which the partner always did exactly the same thing during the group task, highlighting the causal power of contribution claims to affect judgments. Moreover, we observed this effect even though the contribution claim did not influence perceptions of actual work done, ruling out alternative explanations that differences in impressions are due to differences in perceived partner contribution. This shows that the effect of contribution claiming on group members'

judgments is not due to just imagining different types of group tasks, partners, or contexts, since all of those attributes were kept constant across the experimental conditions in Supplemental Experiment S1.

Supplemental Experiment S2

Across Supplemental Experiments S2 and S3, we strove to examine: (1) how impressions of overclaimers and underclaimers compare to a baseline condition in which a group member's contributions claims are unknown; (2) whether claims affect impressions differently when the target group member's contribution is unknown; and (3) whether the evaluator's group membership or status in the group (i.e., a peer worker or supervisor) affects impressions of contribution-claimers.

Method

Participants. We predetermined 70 participants in each of eight conditions, aiming for 560 participants total. In total, 564 adults ($Median_{\,age\ range}$ = 26-34, 63.7% male) recruited from Amazon Mechanical Turk completed the study in exchange for $1.00.

Procedure. We randomly assigned participants into one of eight possible between-subjects conditions: 2 (role: supervisor vs. worker) × 4 (teammate-claim: underclaimer, equal claimer, overclaimer, or unknown claimer). Upon starting the survey, participants assigned to the worker role first learned about the context of their group project:

> "Please imagine that you are working on a group project (for work/class) with 3 other people that you don't know very well. After completing the task over the course of several days, each team member privately completes a self-evaluation reporting how much of the total work they themselves contributed out of 100%. Therefore, if everyone claimed exactly an equal amount of work contributed, they would claim 25%."

We told participants, "Everyone seemed to do a lot of work," thereby making the actual amount of work completed ambiguous. Next, participants learned that "your teammates reported that

they each completed [15%] / [25%] / [35%] of the work" for underclaimer, equal claimer, and overclaimer conditions, respectively. We selected these numbers by simply adding or subtracting 10% from a perfectly equal distribution of labor (25% each among 4 team members). One-quarter of the participants did not see any information regarding contribution claims, and instead read, "You do not find out how much your teammates reported" (unknown claimer condition).

Participants assigned to the supervisor role saw the same conditions but the information was altered to reflect the supervisor's perspective: "Please imagine that you are a boss overseeing four people that you don't know very well working on a group project (for work/class)…You find out that three of the teammates reported that they each completed [15%] / [25%] / [35%] of the work" or "You do not find out how much the teammates reported" in the underclaimer, equal claimer, overclaimer, and unknown claimer conditions, respectively. For the full text of the scenarios used across studies, please see Supplemental Table S2. Participants then completed a survey evaluating their teammates or subordinates.

Supplemental Table S2

Experimental Design and Scenarios for Supplemental Experiments S2 and S3

Supplemental Experiment S2:

- **Design:** 2 (role: supervisor vs. worker) × 4 (teammate-claim: underclaimer, equal claimer, overclaimer, or unknown claimer) between-subjects
- **Purpose:** To examine the effect of overclaiming and underclaiming compared to a baseline condition where the target does not make a claim (unknown-claim) and to examine whether in-group status (supervisor or subordinate) moderates the effect of claim on impressions.
- **Supervisor Scenario:** "Please imagine that you are a boss overseeing four people that you don't know very well working on a group project (for work/class). After completing the task over the course of several days, each team member privately completes a self-evaluation reporting how much of the total work they themselves contributed out of 100%. Therefore, if everyone claimed exactly an equal amount of work contributed, they would claim 25%. Everyone seemed to do a lot of work."
- **Worker Scenario:** "Please imagine that you are working on a group project (for work/class) with 3 other people that you don't know very well. After completing the task over the course of several days, each team member privately completes a self-evaluation reporting how much of the total work they themselves contributed out of 100%. Therefore, if everyone claimed exactly an equal amount of work contributed, they would claim 25%. Everyone seemed to do a lot of work."
- **Underclaimer Condition:** "You find out that [your teammates]/[three of the teammates] reported that they each completed [15%] of the work."
- **Equal Claimer Condition:** "You find out that [your teammates] / [all of the teammates] reported that they each completed [25%] of the work."
- **Overclaimer Condition:** "You find out that [your teammates] / [three of the teammates] reported that they each completed [35%] of the work."
- **Unknown Claimer Condition:** "You do not find out how much your teammates reported."

Supplemental Experiment S3:

- **Design:** 2 (role: supervisor vs. worker) × 4 (teammate-claim: underclaimer, equal claimer, overclaimer, or unknown claimer) between-subjects
- **Change to supervisor and worker scenarios:** Replaced the final sentence, "Everyone seemed to do a lot of work." with: "You have reason to believe that everyone completed the same amount of work (25% each)."
- **No change to underclaimer, equal claimer, overclaimer, and unknown claimer descriptions**

Materials (Survey).

Warmth and competence. We measured perceived warmth with the following item: "How do you feel toward [your teammates] / [those team members]?" (1 = *strongly dislike*, 7 = *strongly like*). We measured competence with the following item: "How smart do you think [your teammates] / [those team members] are?" (1 = *very not smart*, 7 = *very smart*).

Interest in working again. To measure interest in working or supervising again, we asked, "How much do you look forward to [working with your teammates] / [supervising those

team members] again in the future?" (1 = *not at all*, 7 = *very much*).

Belief about the amount of work contributed. Participants reported how much work they *actually* believed their teammates or subordinates did: "Although they claimed [15%] / [25%] / [35%], what % of the work do you think [your teammates] / [those team members] actually contributed on average?" with a free response box. If they were in the Unknown-claimer condition, participants simply reported, "What % of the work do you think [your teammates] / [those team members] actually contributed on average?" with a free response box.

Interpersonal perceptions index. We additionally measured the following interpersonal perceptions: (1) Perceived humility: "How humble do you think [your teammates] / [those team members] are?" (1 = *very not humble*, 7 = *very humble*); (2) Perceived arrogance: "How arrogant do you think [your teammates] / [those team members] are?" (1 = *very not arrogant*, 7 = *very arrogant*); (3) Perceived fairness: "How fairly do you think [your teammates treat you] / [those team members behave]?" (1 = *very unfairly*, 7 = *very fairly*); (4) Own future effort: "How hard will you personally work on the next project?" (1 = *not hard at all*, 7 = *very hard*); (5) Others' future effort: "How hard do you think your teammates will work on the next project?" (1 = *not hard at all*, 7 = *very hard*); and (6) Future quality: "What quality project will be produced in the future?" (1 = *very low quality*, 7 = *very high quality*). These items formed a single *interpersonal-perception index*, in which we reverse-scored arrogance (a = .85).

Finally, participants reported their demographic information (including their Big 5 personality characteristics).

Results

A 4 (claim) × 2 (role) ANOVA revealed main effects of claim on warmth, competence, desirability to work with again, and the interpersonal-perceptions index, $Fs(3, 556) = 45.65$,

23.48, 36.64, and 42.77, *ps* < .001, η_p^2 = 0.19, 0.11, 0.16, and 0.19, and non-significant main effects of role on warmth and competence and significant main effects of role on desirability to work with again and the interpersonal-perceptions index, *Fs*(3, 556) = 3.19, 1.57, 4.63, and 5.28, *ps* = .074, .193, .032, and .002, η_p^2 = 0.00, 0.00, 0.01, and 0.02. These main effects were qualified by a significant interaction on each measure, *Fs*(3, 556) = 6.15, 6.60, 5.11, and 4.97, *ps* < .001, η_p^2 = 0.03, 0.03, 0.03, and 0.03. Decomposing the interaction effects, main effects of overclaim vs. underclaim on impressions on warmth, competence, and desirability to work with again emerged in the worker condition, *ts*(556) > 3.45, *ps* < .001, *ds* > 0.55, but not the supervisor condition, *ts*(556) < 0.70, *ps* > .483, *ds* < 0.11.

Collapsing across the worker and supervisor conditions, equal claimers (*Ms* = 5.20, 5.21, 5.22, and 5.20, *SDs* = 1.26, 1.20, 1.38, and 1.06) and unknown claimers (*Ms* = 5.33, 5.23, 5.23, and 5.18, *SDs* = 1.07, 1.14, 1.26, and 0.92) were rated similarly on warmth, competence, desirability to work with again, and the interpersonal-perceptions index, respectively, *t*(556) < 0.82, *ps* > .411, *ds* < 0.11. Furthermore, equal claimers and unknown claimers were perceived as higher on warmth, competence, desirability to work with again, and the interpersonal-perceptions index than underclaimers (*Ms* = 4.40, 4.51, 4.36, and 4.88, *SDs* =1.60, 1.42, 1.72, and 1.25), *ts*(556) > 2.54, *ps* < .011, *ds* > 0.28. Supporting our hypotheses, underclaimers, equal claimers, and unknown claimers were perceived as higher on warmth, competence, desirability to work with again, and the alternative perceptions index than overclaimers (*Ms* = 3.71, 4.21, 3.70, and 3.99, *SDs* = 1.30, 1.31, 1.42, and 0.93), *t*(556) > 1.93, *ps* < .053, *ds* > 0.22.

Subsidiary analyses. We also examined the role of claim on beliefs about work completed. A 4 (claim) × 2 (role) ANOVA revealed a main effect of claim, *F*(3, 556) = 35.39, *p* < .001, η_p^2 = 0.16, no effect of role, *F*(3, 556) = 2.07, *p* = .150, η_p^2 = 0.00, and a significant

interaction, $F(3, 556) = 2.71$, $p = .044$, $\eta_p^2 = 0.01$. Decomposing the interaction, underclaimers in the worker condition ($M = 20.7\%$, $SD = 15.6\%$) were perceived to have contributed more than underclaimers in the supervisor condition ($M = 15.60\%$, $SD = 7.10\%$), $t(556) = 2.81$, $p = .005$, $d = 0.42$, but the other claimers were seen as contributing similar amounts in both the worker and supervisor conditions.

Collapsing across the worker and supervisor conditions, unknown claimers were perceived to have contributed ($M = 31.39\%$, $SD = 17.66\%$) more than equal claimers, overclaimers, and underclaimers, respectively ($Ms = 23.73\%$, 25.57%, and 18.23%, $SDs = 17.66\%$, 6.79%, and 9.33%), $ts(556) > 4.55$, $ps < .001$, $ds > 0.44$. Equal claimers and overclaimers were evaluated similarly, $t(556) = 1.42$, $p < .154$, $d = -0.13$, and both were perceived to have contributed more than underclaimers, $ts(556) > 4.32$, $ps < .001$, $ds = 0.39$.

Discussion

Overall, Supplemental Experiment S2 demonstrates that group members who overclaim (vs. underclaim, equally claim, or unknown claim) their contributions are evaluated as less warm, less competent, and less desirable to work with when the evaluator is low in the hierarchy (worker) but not when the evaluator is high in the hierarchy (supervisor), identifying a potential boundary condition to the effect of contribution-claiming behavior on impressions. We observed this pattern of results when it was not clear what was each group member's true contribution. Thus, we sought to replicate this pattern of results when we make it clear the contribution of each group member.

Supplemental Experiment S3: Clarifying Actual Amount of Work Done

To test whether the moderating influence of hierarchical level (supervisor or worker) holds when it is made clear each group member contributed an equal amount, we ran a follow-up

to Supplemental Experiment S2 with the same design but told participants at the end of the scenario that "you have reason believe everyone completed 25% of the work" to provide a more explicit signal of teammates' actual work accomplished.

Method

This experiment was pre-registered on OSF (https://osf.io/2ng7e/?view_only=494120933c9e4c3d81778f5dcd4ca443).

Participants. Following the same sample size rule used in Supplemental Experiment S2, we predetermined about 70 participants per each of eight conditions, or 560 total. 569 adults (*Median* $_{age\ range}$ = 26-34; 377 male, 192 female) from Amazon Mechanical Turk completed the study in return for $1.00.

Procedure and materials. The procedure and materials were identical to that of Experiment S2 except for three changes. First, we replaced the last sentence in the scenario, from: "It seemed like everyone did a lot of work" to: "You have reason to believe that everyone did equal amounts of work (25%)" in order to test whether this more explicit information would change impressions of overclaimers and underclaimers. Second, we added a measure of confidence, "How confident do you think [your teammates] / [the team members] are?" (1 = *not at all confident*, 7 = *very confident*) to our interpersonal-perception index (a = .79). Third, we modified our measure of interest in working again in order to more directly measure affect: "How would you feel about [working with your teammates] / [supervising those team members] again in the future?" (1 = *very negatively*, 7 = *very positively*).

Results

A 4 (claim) × 2 (role) ANOVA revealed main effects of claim on warmth, competence, desirability to work with again, and the alternative perceptions index, *Fs*(3, 561) = 41.72, 22.64,

33.84, and 36.32, *ps* < .001, η_p^2 = 0.18, 0.11, 0.15, and 0.16, non-significant main effects of role on warmth, competence, desirability to work with again but a significant main effect of role on the alternative perceptions index, *Fs*(3, 561) = 1.56, 1.21, 2.57, and 6.60, *ps* = .212, .272, .101, and .010, η_p^2 = 0.00, 0.00, 0.01, and 0.01, and no interactions, *Fs*(3, 551) = 1.20, 0.81, 1.96 , and 2.64, *ps* = .309, .485, .118, and .048, η_p^2 = 0.00, 0.00, 0.01, and 0.01.

Equal claimers (*Ms* = 5.52, 5.19, 5.51, and 5.19, *SDs* = 1.10, 1.17, 1.32, and 0.83) and unknown claimers (*Ms* = 5.27, 5.30, 5.37, and 5.12, *SDs* = 1.20, 1.06, 1.35, and 0.87) were rated similarly on warmth, competence, desirability to work with again, and the interpersonal-perceptions index, respectively, *ts*(551) < 1.66, *ps* > .096, *ds* < 0.22. Furthermore, equal claimers and unknown claimers were perceived as higher on warmth, competence, desirability to work with again, and the interpersonal-perceptions index than underclaimers (*Ms* = 4.65, 4.44, 4.69, and 4.73, *SDs* = 1.35, 1.27, 1.47, and 0.96), *ts*(556) > 3.55, *ps* < .001, *ds* > 0.43. Supporting our hypotheses, underclaimers, equal claimers, and unknown claimers were perceived as higher on warmth, desirability to work with again, and the interpersonal-perceptions index than overclaimers (*Ms* = 3.96, 3.98, and 5.21, *SDs* = 1.48, 1.66, and 0.96), *ts*(551) > 4.11, *ps* < .001, *ds* > 0.46, although no difference on competence (*M* = 4.40, *SD* = 1.29), *t*(561) = 0.24, *p* = .810, *d* = 0.02.

Subsidiary analyses. We also examined the role of claim and role on beliefs about work completed. A 4 (claim) × 2 (role) ANOVA revealed a main effect of claim, *F*(3, 551) = 9.54, *p* < .001, η_p^2 = 0.05, a marginal main effect of role, *F*(3, 551) = 3.47 *p* = .063, η_p^2 = 0.01, but no interaction, *F*(3, 551) = 0.57, *p* = .630, η_p^2 = 0.00. Unknown claimers, equal claimers, and overclaimers were evaluated similarly on work completed (*Ms* = 29.3%, 28.1%, and 27.2% *SDs* = 16.8%, 14.1%, and 11.8%), *ts*(551) < 1.25, *ps* > .212, *ds* < 0.15. All three claim conditions

were perceived to complete more work than underclaimers (M = 21.2%, SD = 12.4%), $ts(551) > 3.65$, $ps < .001$, $ds > 0.50$.

Discussion

These results suggest that when actual contributions are made clear, the hierarchical level of the evaluator (boss or worker) does not moderate the effect of contribution claim on impressions. However, we note that Supplemental Experiments S2 and S3 provide little contextual information, and, in real-world groups, it is less likely that people have symmetric "25%" contribution split sorts. We acknowledge this limitation with the vignette methodology, and, across all of our studies, we seek to replicate the effects using a variety of contexts and methods.

Supplemental Experiment S4: Moderation by Contribution Ambiguity

The goal of Supplemental Experiment S4 was to test whether evaluators' impressions of group members who deliberately overclaim, underclaim or accurately claim their contributions are moderated by evaluators' knowledge about how much the group members actually contributed (i.e., contribution ambiguity). Using a workgroup vignette, we experimentally varied whether evaluators had full knowledge or no knowledge of the target group members' actual contribution (representing low and high ambiguity, respectively). We predicted that we would replicate the interpersonal penalties attached to overclaiming when contribution ambiguity was low. Under high contribution ambiguity, however, we reasoned that evaluators would not be able to judge whether a contribution claim constituted an overclaim, underclaim, or accurate-claim; as a result, under high contribution ambiguity, the contribution claim may change evaluators' perceptions of the amount of work the target group member actually contributed. In such a way, we predicted that the interpersonal penalties attached to deliberate overclaiming would be

attenuated or even reversed when contribution ambiguity was high.

Methods

We preregistered the experiment on AsPredicted (https://aspredicted.org/blind.php?x=z9935t).

Participants. We predetermined 50 participants in each of two between-subjects conditions, aiming for 100 participants total. 100 adults (M_{age} = 34.67 SD_{age} = 9.42; 56 male, 43 female, 1 other) with full-time work experience recruited from Prolific Academic completed the study in exchange for $0.32.

Procedure. We asked participants to imagine the following vignette:

> "Please imagine that you have a team of four employees working on a project for you. You don't know any of the employees very well. After the team submitted the project deliverable, your task (as the team supervisor) is to identify and evaluate the unique contributions of each team member. As part of the normal project review, each employee reported their contributions to the team after the product was complete. Employee A said they are responsible for 40% of the work, Employee B said they are responsible for 10% of the work, and Employees C and D each said they are responsible for 25% of the work."

Participants randomly assigned to the [low]/[high] ambiguity condition were told they "[watched]/[did not watch] the team work together, so you [do]/[do not] have a sense of what each employee individually contributed." Moreover, participants in the low ambiguity condition were told: "You believe that each employee is responsible for about an equal share of the work (in this 4-person team, this means you think each employee did about 25% of the work)." Thus, assuming that participants in the low ambiguity condition believed the information that we provided, those participants perceived Employee A to be overclaiming, Employee B to be underclaiming, and Employees C and D to be accurately claiming. In contrast, participants in the high ambiguity condition only knew that Employee A claimed to have contributed more than an equal share, Employee B claimed to have contributed less, and Employees C and D claimed to

have contributed exactly the equal share of the work.

Materials (Survey).

Manipulation check. To measure participants' perceptions of whether each employee had overclaimed their contributions, we asked participants the following question: "To what extent do you think each employee underestimated, accurately estimated, or overestimated their contributions to the project?" (1 = *very much underestimated*, 7 = *very much overestimated*).

Impressions. We measured perceptions of warmth and competence, respectively, based on items from Experiments 1a and 1b: "To what extent do you perceive each employee to be warm and likable?" (1= *not at all*, 7 = *very much*) and "To what extent do you perceive each employee to be smart and hard-working?" (1= *not at all*, 7 = *very much*).

Results

Manipulation check. We first examined participants' perceptions about each employee's level of overclaiming. Across conditions, Employee A was viewed as more strongly overestimating their contributions to the project (M = 5.22, SD = 1.18) than Employees C and D (M = 4.05, SD = 0.71), $t(297) = 7.50$, $p < .001$, $d = 0.87$, and than Employee B (M = 2.68, SD = 1.32), $t(297) = 16.28$, $p < .001$, $d = 1.89$. Moreover, Employees C and D were viewed as more strongly overestimating contributions than Employee B, $t(297) = 8.78$, $p < .001$, $d = 1.02$ (one-way mixed model ANOVA: $F(2, 297) = 132.91$, $p < .001$, $\eta_p^2 = .47$).

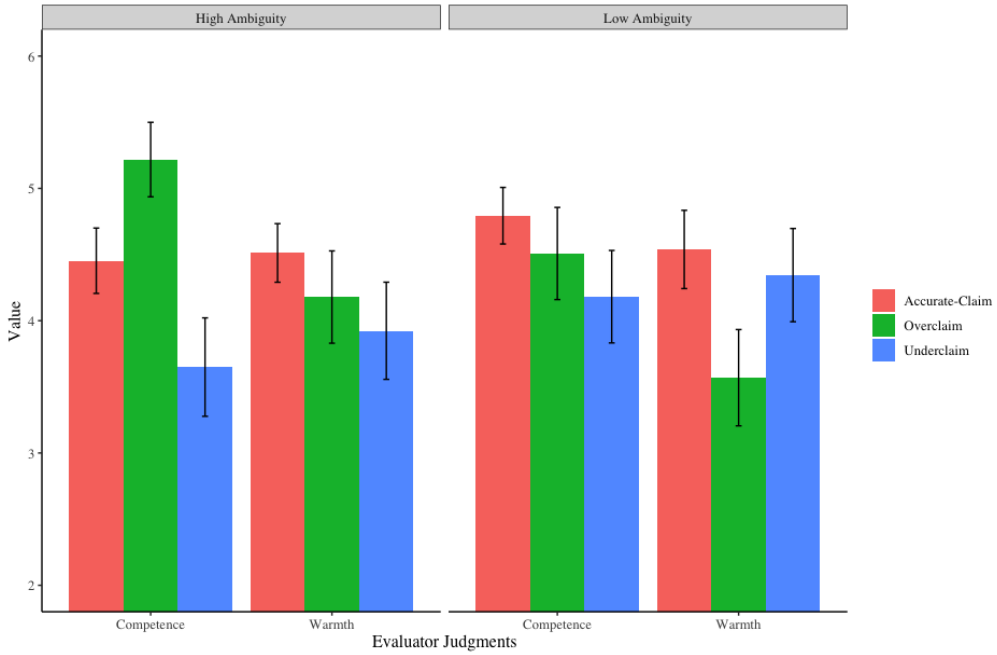
However, perceptions of overclaiming and underclaiming behavior did depend on how much ambiguity there was about the contribution, as hypothesized. Participants perceived Employee A as overclaiming more when they knew their true contributions (M = 5.71, SD = 1.21) than when they did not (M = 4.75, SD = 0.94), $t(294) = 4.67$, $p < .001$, $d = 0.38$, and also viewed Employee B as underclaiming more when they knew their true contributions (M = 2.20,

SD = 1.15) than when they did not (*M* = 3.14, *SD* = 1.33), *t*(294) = -4.50, *p* < .001, *d* = -0.37. Participants did not, however, perceive Employees C or D any differently by condition, *t*(294) = 0.01, *p* = .992, *d* = 0.00.

Evaluations of contribution-claiming behavior. Moving to our main results, when contribution ambiguity was low, Employee A (who was seen as more of an overclaimer) was perceived as less warm (*M* = 3.76, *SD* = 1.49) than Employee B (who was seen as more of an underclaimer; *M* = 4.53, *SD* = 1.60), *t*(98) = -2.68, *p* = .009, *d* = -0.54. However, when contribution ambiguity was high, Employee A (*M* = 4.00, *SD* = 1.30) was not perceived as differently warm than Employee B (*M* = 3.75, *SD* = 1.55), *t*(98) = 0.90, *p* = .371, *d* = 0.18 (2x2 mixed model ANOVA interaction: *F*(1, 98) = 6.46, *p* = .013, η_p^2 =. 06). On the other hand, when contribution ambiguity was low, Employee A was not perceived differently in competence (*M* = 4.69, *SD* = 1.50) compared to Employee B (*M* = 4.37, *SD* = 1.39), *t*(196) = 1.18, *p* = .240, *d* = -0.17, but when contribution ambiguity was high, Employee A was actually perceived as more competent than Employee B (*Ms* = 5.04 vs. 3.47, *SDs* = 1.13 vs. 1.43), *t*(196) = 5.78, *p* < .001, *d* = 0.83 (2x2 mixed model ANOVA interaction: *F*(1, 196) = 10.25, *p* = .002, η_p^2 =. 05). See Supplemental Figure S3.

Supplemental Figure S3

Effect of Experimental Condition (Overclaiming Employee "A", Underclaiming Employee "B", or Accurately Claiming Employees "C" and "D") and Contribution Ambiguity (High or Low) on Perceived Competence and Warmth in Supplemental Experiment S4



Notes. The y-axis represents participants' survey responses on 7-point scales. Error bars represent the 95% confidence intervals around the mean.

Furthermore, consistent with Experiment 1b, Employees C and D (who were seen as accurately claiming their contributions) were perceived as more warm (M = 4.53, SD = 1.11) than Employee A (the overclaiming employee; M = 3.88, SD = 1.39) and Employee B (the underclaiming employee; M = 4.13, SD = 1.61), $ts(196)$ = 3.79 and 2.27, ps < .024, ds > 0.32 (one-way mixed model ANOVA: $F(2, 198) = 6.90$, p = .001, η_p^2 =. 07). They were rated as similarly competent (M = 4.62, SD = 1.04) as Employee A (M = 4.87, SD = 1.33), $t(196) = 1.50$, p = .135, d = 0.21, but more competent than Employee B (M = 3.91, SD = 1.48), $t(196) = 4.44$, p < .001, d = 0.61 (one-way mixed model ANOVA: $F(2, 198) = 18.10$, p < .001, η_p^2 =. 16).

Discussion

When individuals have a good sense of what their group members actually contributed (low contribution ambiguity), they perceive group members who claim a lot to be overclaiming, and hence judge them to be less warm than group members who claim a little and are seen as underclaiming. However, when individuals do not have a sense of what their group members

actually contributed (high contribution ambiguity), they are less likely to perceive higher-claiming group members to be overclaiming and judge them as more competent than lower-claiming group members. This suggests that, in the absence of information about actual contribution, a high contribution claim can convince evaluators that the target individual actually did contribute a lot. Overall, this experiment indicates that overclaiming contributions is a mistaken impression management strategy when there is low ambiguity about each person's unique contribution.

Supplemental Experiment S5: Effect of Actual Contribution on Claim Perception

Supplemental Experiment S5 examines whether the effect of contribution claiming on evaluations might be influenced by group member's actual contributions. Although Experiments 1b-3 indicated that contribution claims affect evaluations even when the target group member's actual contribution is held constant, it is still unclear the role that actual contributions may play in the relationship between contribution claims and evaluations. To test this question in real groups, we designed a survey in which people recalled the actual contributions of their group members and then we asked them to report how their impressions would change if the group member had claimed more (overclaimed) or less (underclaimed) than what the participant believed they had actually done.

Method

The study design and analysis plan were pre-registered on AsPredicted (https://aspredicted.org/blind.php?x=vg2va3).

Participants. We predetermined 100 participants in this study; in total, we recruited 103 undergraduate business students from a West Coast university to participate in return for course credit (44 male, 58 female, 1 unreported; M_{age} = 21.66, SD_{age} = 1.85).

Design. The experiment is a 2 (contribution: high vs. low) × 3 (claim: overclaim vs. underclaim vs. accurate claim) within-subjects design.

Procedure. First, we instructed participants to recall a previous group project:

> As you know, sometimes in college classes, students are given assignments which they must complete with other students. Please recall a time in which there was one such assignment, and you worked in a group of at least four students to produce a major assignment for a course. Importantly, the group that you recall should be a group that had at least one high-contributor (i.e., someone who completed more than their equal share) and one low-contributor (i.e., someone who completed less than their equal share). The designated high-contributor and low-contributor must be someone besides you (i.e., you cannot be the stated high- or low-contributor below). Please take some time now to think about this group that contained at least four people with at least one high contributor and at least one low contributor (other than yourself.)

After writing a few sentences about the group project (free response), participants reported their own percent contribution to the group work and made several assessments about the group such as how many people were in the group, the total number of hours worked, and so on (see Survey section below for the full items). Participants then listed the initials of the high-contributor and low-contributor in a free-response box and reported the "estimated percentage of the total work" that the high- and low-contributor completed (out of 100%). This served as our measure of the target individual's actual contribution.

Next, we asked participants to imagine overhearing that the target individual told a peer that they were responsible for a percentage of the work that was either an overclaim (defined as claiming 3/2 of the estimated contribution), underclaim (defined as claiming 2/3 of the estimated contribution), or accurate claim (defined as claiming exactly the estimated contribution). Specifically, participants read the following prompt for the overclaim, underclaim, and accurate claim condition, respectively:

> You reported that [Initials of Group Member] completed [Participant-Generated Contribution Percent] of the group's output. Now, please imagine that you overheard [Initials of Group Member] tell a peer that he/she was responsible for [Participant-

> Generated Contribution Percent * 3/2] / [Participant-Generated Contribution Percent * 2/3] / [Participant-Generated Contribution Percent] of the group's output. In other words, [Initials of Group Member] said they did [more than] / [less than] / [exactly what] you thought they did.

For example, if the participant believed that the target group member did 20% of the work, in the overclaim condition, they imagined that the group member claimed to do 30% of the work (3/2*20% = 30%), in the underclaim condition, they imagined that the group member claimed to do 13% of the work (2/3*20% = 13%), and in the accurate-claim condition, they imagined that the group member claimed to do 20% of the work. We rounded all contribution claims to the nearest 1% to make the claim easier to evaluate. Participants evaluated their high- and low-contributor group members on all three claim conditions (overclaim, underclaim, and accurate-claim; in counterbalanced order).

Per our preregistration, five participants that estimated the low-contribution group member's actual contribution was 0% were excluded from our analysis because we could not manipulate underclaiming due to floor effects. The analysis reported below uses the final sample size of 98.

Materials (Survey).

Assessments of the group. Before the experimental manipulation, we collected information about the group's characteristics: (1) own contribution to the group ("Please think about the total amount of work that your group did. What percentage of this work do you think you were personally responsible for?"; 0% = *contributed nothing to the group's output*, 100% = *contributed everything to the group's output*), (2) number of people in group ("How many people were in the group (including you)?"), (3) the semester/year the group project took place ("What semester was the group project?"), (4) hours worked ("How many hours in total did the group work on the project?"), (5) class content ("What department was the course in (e.g.,

business, chemistry, history)?"), (6) project weight in course grade ("What percentage of your course final grade was the group's assignment(s)?"), (7) project grade ("What grade did your group earn on this project?"), (8) whether the group was formed via assignment or self-selection ("Was the group assigned, or did you select your own group members?"), and (9) satisfaction with the group ("In general, how satisfied were you with your group?"; 1 = *not at all satisfied*, 7 = *extremely satisfied*). Since our manipulation was within-person, these person-level variables do not influence our results. Robustness analyses showed that our effect remains identical when controlling for these variables.

To collect the target group member's actual contribution to the group, we asked participants: "Please think about the total amount of work that your group did. What percentage of this work do you think [Initials of Group Member] was responsible for?"; 0% = *contributed nothing to the group's output*, 100% = *contributed everything to the group's output*). Participants also reported how well they knew the high- and low-contributor before the start of the project (1 = *not at all*, 7 = *extremely well*).

Evaluations of the target group member. After the experimental manipulation, we measured participants' assessments of the target group member's level of warmth and competence (Fiske et al., 2002): for warmth: tolerant, warm, good natured, sincere, supportive; for competence: confident, intelligent, competent, independent, competitive (1 = *not at all*, 7 = *extremely*). We additionally measured leadership evaluations with the following four items: "If you heard [Initials of Group Member] say this, to what extent would you think [Initials of Group Member] was cooperative, achievement-oriented, a leader, displayed equity (i.e., concern for establishing and maintaining fairness) in your group?" (1 = *not at all*, 7 = *extremely*). We measured willingness to work with the group member again with the following item: "If you

heard [Initials of Group Member] say this, how would you feel about working with [Initials of Group Member] again in the future?" (1 = *very negative*, 7 = *very positive*).

Accuracy check. After completing all of the dependent variables, and to ensure that the overclaiming and underclaiming conditions appeared similarly accurate to participants, we additionally measured the degree to which those conditions were seen as accurate: "How accurate is it for [Initials of Group Member] to claim he/she was responsible for [Participant-Generated Contribution Percent * 3/2] / [Participant-Generated Contribution Percent * 2/3] of the group's output?" (1 = *not at all accurate*, 7 = *extremely accurate*). Due to an error in the survey flow, we did not include an accuracy check for the low-contributor, accurate claimer condition. Thus, our analysis on this measure excludes the accurate-claiming factor and thus focuses on claim (overclaimer vs. underclaimer) and contribution (high-contributor vs. low-contributor).

Results

To test our predictions, we conducted mixed linear models regressing our dependent variables on fixed effects for contribution, claim, and their interaction term, and a random factor for participant (e.g., Brauer & Curtin, 2018).

Collapsing across the claiming condition, unsurprisingly, higher contributors were seen as warmer (M = 4.61, SD = 1.51), more competent (M = 5.06, SD = 1.08), received higher leadership evaluations (M = 5.07, SD = 1.29), and were more desired to work with again (M = 5.15, SD = 1.72) than did lower contributors (Ms = 3.54, 3.46, 2.71, and 2.64, SDs = 1.41, 1.20, 1.22, and 1.57), two-way ANOVA main effects of contribution: $Fs(1, 96)$ = 75.51, 170.69, 272.99, and 213.13, $ps < .001$, η_p^2 = 0.22, 0.36, 0.62, and 0.72, respectively.

We next examined the effect of claiming condition when target group members were high or low contributors. When targets were high contributors, underclaimers were seen as

warmer (M = 5.35, SD = 1.18) but less competent (M = 4.73, SD = 1.11), received higher leadership evaluations (M = 5.35, SD = 1.16), and were more desired to work with again (M = 5.86, SD = 1.42) than overclaimers (Ms = 3.40, 5.08, 4.31, and 3.91, SDs = 1.22, 1.04, 1.23, and 1.58, respectively), $ts(95)$ = 12.11, -2.78, 7.58, and 10.05, ps < .006, ds = 1.62, -0.32, 0.86, and 1.30, respectively. Likewise, when targets were low contributors, underclaimers were seen as warmer but similarly competent, received higher leadership evaluations, and were more desired to work with again (Ms = 3.98, 3.29, 2.74, 2.87, SDs = 1.37, 1.23, 1.25, 1.68, respectively) compared to overclaimers (Ms = 2.67, 3.45, 2.34, and 2.01, SDs = 1.15, 1.16, 1.08, and 1.30, respectively), $ts(95)$ = 8.67, -1.19, 3.35, and 5.59, ps = < .001, .234, .001, and <.001, ds = 1.03, -0.12, 0.35, and 0.57. Moreover, the effect of overclaim vs. underclaim was stronger on impressions of warmth (vs. competence) when the target group member was a high contributor, $F(1, 100.07) = 204.09$, $p < .001$, $\eta_p^2 = 0.67$, and a low contributor, $F(1, 100.89) = 99.08$, $p < .001$, $\eta_p^2 = 0.50$.

We also compared evaluations of accurately claiming group members with overclaiming group members. When the target was a high contributor, accurate claimers were seen as warmer (M = 5.10, SD = 1.32) and more competent (M = 5.36, SD = 0.98), received higher leadership evaluations (M = 5.57, SD = 1.13), and were more desired to work with again (M = 5.69, SD = 1.43) compared to overclaimers, $ts(95)$ = 11.13, 2.39, 10.32, and 11.11, ps = <.001, .018, <.001, and <.001, ds = 1.34, 0.27, 1.06, and 1.18, respectively. A similar pattern of results, although weaker, emerged when the target group member was a low contributor: again accurate claimers were seen as warmer (M = 3.99, SD = 1.31) and more competent (M = 3.66, SD = 1.20), received higher leadership evaluations (M = 3.06, SD = 1.22), and were more desirable to work with than overclaimers (M = 3.05, SD = 1.54), $ts(95)$ = 9.75, 1.87, 6.97, and 8.16, ps = <.001, .063, <.001,

and <.001, *ds* = 1.07, 0.18, 0.63, and 0.73, respectively.

Finally, we explored whether the overclaiming and underclaiming conditions were perceived as being similarly accurate. The underclaim condition (M = 3.32, SD = 1.48) was perceived as more accurate than the overclaim condition was (M = 2.80, SD = 1.40), $F(1, 96) = 9.94$, $p = .002$, $\eta_p^2 = 0.03$, and the low-contributor condition (M = 3.22, SD = 1.52) was perceived as more accurate than the high-contributor condition was (M = 2.89, SD = 1.39), $F(1, 96) = 8.84$, $p = .003$, $\eta_p^2 = 0.03$; however, there was no interaction between claim and contribution, $F(1, 96) = 1.19$, $p = .276$, $\eta_p^2 = 0.01$.

Discussion

In the context of real groups, Supplemental Experiment S5 demonstrates that overclaimers (vs. underclaimers) are viewed as less warm, less likely to be viewed as a leader, and less likely to be desired as a team member irrespective of whether the target group member was a high or low contributor in the group. However, the results do indicate that level of contribution moderates the effect of claim on impressions, such that the overclaim (vs. underclaim) penalty on warmth is especially pronounced when the focal individual is a higher (vs. lower) contributor in the group. Specifically, underclaiming becomes more interpersonally valued (e.g., making the target group member seem warmer and more appealing to work with again) when the target group member contributes more. In contrast, underclaimers who contribute less have a weaker (but still significant) interpersonal advantage over overclaimers.

Supplemental Experiment S5 is not without limitations. One concern is that high contributors could simply be different from low contributors on many possible characteristics that we did not measure, and some of these other characteristics could account for the weakened claiming effect among low-contributors. Another concern is that, as the estimated contribution of

the focal individual becomes closer to 0%, both the overclaiming and underclaiming manipulations may feel more subtle (e.g., someone who contributes 2% would be imagined contributing 3% in the overclaiming condition and 1% in the underclaiming condition, whereas someone who contributes 40% would be imagined to contributed 60% in the overclaiming condition and 27% in the underclaiming condition). This could provide an alternative explanation for the stronger effect of claim condition in the high-contributor versus low-contributor conditions. Furthermore, the underclaim condition was perceived as relatively more accurate than the overclaim condition, which may have contributed to the interpersonal benefits of underclaiming (versus overclaiming) observed in this experiment. To address these three concerns, we conducted Supplemental Experiment S6.

Supplemental Experiment S6: Replication of Effect of Actual Contribution

The purpose of this experiment was to provide a conceptual replication test of Supplemental Experiment S5 using vignettes about group work instead of recalled experiences with group work. Specifically, we tested how perceiving a group member to overclaim or underclaim their contributions, when they did more or less actual work, affected perceptions of the contribution-claimer's leadership potential and beliefs about the actual amount of work they did.

Method

This experiment was pre-registered on OSF (https://osf.io/2jxkp).

Participants. We predetermined 100 participants in each of four conditions, aiming for 400 participants total. 399 adults (M_{age} = 35.32, SD = 11.12; 233 male, 166 female) recruited from Amazon Mechanical Turk completed the study in exchange for $0.50.

Design. The experiment was a 2 (contribution: high vs. low) × 2 (claim: underclaimer vs.

overclaimer) between-subjects design.

Procedure. Upon starting the survey, participants were asked to imagine they are business students enrolled in a leadership course working on a class project in a four-member team. Additionally, participants were provided with the following information about a low [high] contributing group member:

> "At the beginning of the project, you and your teammates split the work for the project equally into four separate parts. Therefore, if you each completed the share that you had originally set for yourselves, you would each do about 25% of the work. In the course of working on the project, you learned about the contributions of one team member named "John." John finished less [more] than his fair share of the work. You think he finished about half of his share [not only his own share but also about half of another team member's share], meaning he probably contributed 15% /[35%] of the total work for the four-person team. Furthermore, you saw John's individual paper grades throughout the class and you know that he scored below-average [above-average] in the class on his papers."

The last paragraph of the prompt contained the claim information. For participants assigned to the low contribution condition (15% of the total work), they read the following claim information for underclaim and overclaim conditions, respectively: "However, you also happened to see John's self-reported contribution claim. According to his self-report, John said that he contributed 10% [20%] of the total work of your four-person team." For participants in the high contribution condition (35% of the total work), they read the following: "However, you also happened to see John's self-reported contribution claim. According to his self-report, John said that he contributed 30% [40%] of the total work of your four-person team."

Materials (Survey).

Leadership evaluation. Participants evaluated the target on four leadership dimensions, modifying the scale used in Supplemental Experiment S5: (1) Cooperation: "…to what extent do you think that John probably displayed cooperation (i.e., was cooperative, interested in teamwork and valued the group's objective"; (2) Leadership: "…to what extent do you think that John

probably displayed leadership (i.e., guided team members toward goal accomplishment?)"; (3) Achievement: "…to what extent do you think that John probably displayed achievement (i.e., completed tasks assigned to him in a timely and effective manner); and, (4) Equity: "…to what extent do you think that John probably displayed equity (i.e., demonstrated a concern for establishing and maintaining fairness and equity among group members?"). These items formed a single index of leadership evaluation (1 = *not at all*, 9 = *extremely*; *a* = .93).

Perceived actual contribution. Participants reported how much work they *actually* believed the target did: "How much work did John actually do?" on a 0% to 100% scale.

Perceived humility index. As an exploratory index, participants evaluated John on the following four items reflecting perceptions of humility: "How confident (reverse-scored), humble, modest, arrogant (reverse-scored) do you think John is?" on a 7-point scale (*a* = .66).

Results

Leadership evaluation. A 2 (contribution: high vs. low) × 2 (claim: underclaimer vs. overclaimer) ANOVA on leadership evaluations revealed a main effect of contribution, $F(1, 396) = 260.54$, $p < .001$, $\eta_p^2 = 0.40$, a main effect of claim, $F(1, 396) = 5.41$, $p = .021$, $\eta_p^2 = 0.01$, and a significant interaction, $F(1, 396) = 18.87$, $p < .001$, $\eta_p^2 = 0.05$. The significant interaction indicated that when John was a high contributor, underclaiming received higher leadership evaluations ($M = 7.29$, $SD = 1.23$) than overclaiming ($M = 6.14$, $SD = 1.48$), $t(395) = 4.71$, $p < .001$, $d = 0.84$; however, when John was a low contributor, there was no significant difference between underclaiming ($M = 3.77$, $SD = 1.88$) and overclaiming ($M = 4.12$, $SD = 2.12$), $t(395) = -1.42$, $p = .155$, $d = -0.17$.

Perceived actual contribution. A 2 (contribution: high vs. low) × 2 (claim: underclaimer vs. overclaimer) ANOVA on perceived contribution revealed a main effect of contribution, *F*(1,

388) = 428.32, $p < .001$, $\eta_p^2 = 0.52$, a main effect of claim, $F(1, 388) = 6.45$, $p = .011$, $\eta_p^2 = 0.02$, and a marginally significant interaction, $F(1, 388) = 3.17$, $p = .076$, $\eta_p^2 = 0.01$. When John was a low contributor, overclaiming was perceived to have contributed more ($M = 19.20\%$, $SD = 13.80$) than underclaiming ($M = 15.20\%$, $SD = 8.22$), $t(388) = 3.06$, $p = .002$, $d = 0.35$; however, when John was a high contributor, there was no significant difference between overclaiming (M 36.50%, $SD = 7.48$) and underclaiming ($M = 35.8\%$, $SD = 3.96$), $t(388) = 0.52$, $p = .602$, $d = 0.11$.

Perceived humility index. A 2 (contribution: high vs. low) × 2 (claim: underclaimer vs. overclaimer) ANOVA on perceived contribution revealed a main effect of contribution, $F(1, 395) = 11.44$, $p < .001$, $\eta_p^2 = 0.01$, a main effect of claim, $F(1, 395) = 361.80$, $p < .001$, $\eta_p^2 = 0.48$, but no interaction, $F(1, 395) = 1.62$, $p = .204$, $\eta_p^2 = 0.00$. Low contributors were perceived as higher on humility ($M = 4.22$, $SD = 1.23$) than high contributors ($M = 3.90$, $SD = 1.30$), and underclaiming was rated as higher on humility ($M = 4.93$, $SD = 0.89$) than overclaiming ($M = 3.18$, $SD = 0.96$).

Discussion

Supplemental Experiment S6 revealed a similar pattern of results as in Supplemental Experiment S5, finding that the negative effect of overclaiming (vs. underclaiming) on leadership evaluations was larger when the focal individual was a high contributor. In this experiment, however, the effect of overclaiming was eliminated when the target individual was a low contributor.

Supplemental Experiment S7: Conceptual Replication of Experiment 2

Supplemental Experiment S7 provides a conceptual replication of Experiment 2 in the main text. We predicted that group members would strategically overclaim to seem more

competent (vs. warm), but that evaluators would perceive overclaimers as less warm than underclaimers.

Method

Participants. We predetermined 100 participants for each of two experimental conditions. In total, 202 adults (123 male, 79 female, $median_{\,age\ range}$ = 26-34) from Amazon Mechanical Turk participated in exchange for $0.50 compensation.

Design. The experiment design was two conditions (Contribution-Claiming vs. Evaluating) between-subjects, with two additional credit-claim conditions (warmth vs. competence goal) and two additional evaluating conditions (overclaimer vs. underclaimer), within-subjects.

Procedure. Participants in the *Contribution-Claiming condition* (i.e., claimers) were told to "imagine that you are working on a group project (for class or work) with three other people who you do not know very well. After completing the task over the course of several days, the team debriefs each other by sharing how much each person thought they contributed to the group effort." Claimers then imagined pursuing various impression-management goals in randomized order ("Imagine that, in this moment, your goal is to get your teammates to…"). Our primary intent was to examine the three impression management goals that we tested in Studies 1 and 2: a goal to be seen as warm ("get your teammates to like you as much as possible"), a goal to be seen as competent (which we tested using two separate items: "get your teammates to think you are very smart" and "get your teammates to think you were very productive") and a goal to attract teammates ("get your teammates to want to work with you again").

After reading each goal, we asked claimers, "How likely are you to report the following" with regard to three behaviors shown in randomized order: overclaim ("I would report that I did

more than I actually did"), underclaim ("I would report that I did *less than* I actually did"), and accurate-claim ("I would report that I did *as much as* I actually did") on a scale from 0 (*not at all likely to report*) to 100 (*extremely likely to report*). We did not force the scale responses to add to any particular number; participants could thus report that they were extremely likely to engage in all three claiming behaviors.

Participants in the *Evaluating condition* (i.e., evaluators) imagined the same scenario: "Imagine that you are working on a group project (for class or work) with three other people whom you do not know very well. After completing the task over the course of several days, the team debriefs each other by sharing how much each person thought they contributed to the group effort." Evaluators then imagined that "one of your teammates reported that they did more work than what you think they did" (*Overclaiming condition*) and that "one of your teammates reported that they did less work than what you think they did" (*Underclaiming condition*) in randomized order. After reading each prompt, evaluators evaluated the group member on traits that were matched to the same impression management goals that the actors had assessed: (1) Evaluation of warmth: "How do you feel toward that teammate?" (1 = *strongly dislike*, 7 = *strongly like*); (2) Evaluation of competence, measured with two items: "How smart do you think that teammate is?" (1 = *not at all smart*, 7 = *very smart*) and "How productive do you think that teammate is?" (1 = *not at all productive*, 7 = *very productive*); (3) Evaluation of willingness to work together again: "How would you feel about working with that teammate again in the future?" (1 = *very negative*, 7 = *very positive*). All survey items were measured on a 7-point scale; however, some items ranged from 0 to 6, while others ranged from -3 to 3. We numerically re-coded scale anchors to be 1 to 7 to be consistent with other studies. Exact survey items are available on OSF.

Results

In reporting the results of this study, it is important to note that claimers reported their *likelihood* of engaging in different claiming behaviors whereas evaluators reported their *evaluations* of different claiming behaviors. As such, we compared claimers' reported likelihood with evaluators' reported evaluations qualitatively rather than statistically because the questions were different.

As hypothesized, Supplemental Table S3 shows claimers overclaimed more to appear smart vs. likable, $t(99) = 4.06$, $p < .001$, $d = 0.50$, and to appear productive vs. likable, $t(99) = 5.01$, $p < .001$, $d = 0.62$. In contrast to claimers' stated preference to overclaim, evaluators rated overclaimers as being less likable, smart, productive, and reported being more likely to want to work with them in future compared to underclaimers, *ts*(101) = -5.41, -1.91, -3.02, and -5.67, *ps* = .001, .059, <.001, and <.001, *ds* = -0.54, -0.18,- 0.30, and -0.56, respectively.

However, it is important to note that claimers preferred accurately claiming to achieve each of the four goals compared to overclaiming, *ts*(99) > 4.01, *ps* < .001, *ds* > 0.40. When using this measure, which makes it explicit that a claim is either an overclaim or accurate claim, we do not find that individuals overclaim (vs. accurately claim) more to appear competent.

Supplemental Table S3

Descriptive Results in Supplemental Experiment S7

	Contribution-Claiming Condition: Likelihood of Engaging in Overclaiming, Underclaiming, or Accurate Claiming to Satisfy Impression-Management Goal *(0=Not at all likely; 100=Extremely likely)*				**Evaluating Condition:** How Highly Observers Rate a Group Member Who Engages in Overclaiming or Underclaiming on Each Impression Item *(1=Not at all; 7=Very much)*		
	Would Overclaim	**Would Underclaim**	**Would Accurately Claim**	**Difference Score**	**Group Member**	**Group Member**	**Difference Score**

				(Overclaim - Underclaim)	Who Overclaims	Who Under-claims	(Overclaim - Underclaim)
Warmth (Liking)	28.20 (32.87)	19.76 (25.97)	74.75 (27.47)	8.55 (40.55)	3.35 (1.71)	4.75 (1.45)	-1.39 (2.60)
Competence (Smart)	41.31 (35.93)	12.80 (20.28)	75.15 (27.94)	28.51 (39.93)	4.00 (1.39)	4.38 (1.31)	-0.38 (2.02)
Competence (Productive)	45.55 (37.20)	12.61 (21.62)	69.96 (30.10)	32.94 (37.96)	3.68 (1.62)	4.52 (1.66)	-0.84 (2.81)
Attract Teammates	30.21 (32.67)	18.07 (26.54)	77.05 (25.07)	12.14 (38.56)	3.11 (1.74)	4.71 (1.62)	-1.60 (2.85)

Notes. In each cell we report the Mean (Standard Deviation). A positive difference score in the Contribution-Claiming condition reflects greater average likelihood for claimers to overclaim than to underclaim. A positive difference score in the Evaluating condition reflects that evaluators rated overclaimers more positively than underclaimers. A qualitative comparison reveals that claimers prefer to overclaim than underclaim to be seen as *more* warm, competent, and attract teammates but that evaluators rate overclaimers (versus underclaimers) as *less* warm, competent, and attractive to work with.

Subsidiary analyses. Additionally, we examined three other impression-management goals: (1) "get your teammates to think you are very confident and sure of yourself" (confident-goal condition); (2) "get your teammates to think you are very fair" (fair-goal condition); and (3) "get your teammates to think you are very humble" (humble-goal condition). Likewise, evaluators completed the following comparable measures: (1) Evaluation of confidence: "How confident do you think that teammate is?" (1 = *not at all confident*, 7 = *very confident*); (2) Evaluation of fairness: "If you had to work with that teammate again how fairly do you think that teammate would treat you?" (1 = *very unfairly*, 7 = *very fairly*); and (3) Evaluation of humbleness: "How humble do you think that teammate is?" (1 = *very not humble*, 7 = *very humble*).

On these three additional impression-management goals (to appear confident, humble,

and fair), unsurprisingly, claimers preferred to overclaim to seem confident, $t(99) = 6.89$, $p < .001$, $d = 0.69$, preferred to underclaim to appear humble, $t(99) = 6.84$, $p < .001$, $d = .68$, and had no preference between overclaiming or underclaiming to appear fair, $t(99) = 1.01$, $p = .316$, $d = .10$. Additionally, evaluators' impressions aligned with claimer's preferences on the three additional impression-management goals: They also rated overclaimers as less humble and fair than underclaimers, $ts(101) = -8.42$ and -6.52, $ps < .001$, $ds = -0.84$ and -0.65, respectively, but rated overclaimers as more confident than underclaimers, $t(101) = 8.74$, $p < .001$, $d = 0.86$.

Discussion

Results from Supplemental Experiment S7 offer additional support for our theory that individuals mistakenly prefer to overclaim to appear competent (vs. warm). Whereas contribution-claimers reported they would be more likely to overclaim to appear competent (vs. warm), evaluators rated overclaimers as less warm and competent than underclaimers. Importantly, this study conceptually replicates Experiment 2 (in the main text) using a new sample of participants, new vignette, and new measures of warmth and competence.

Summary of Additional Studies

Field Survey of Working Executives

We ran a field study in which executives worked together on a complex group project for 15 weeks ($N = 268$ students, 165 male, 103 female; $M_{age} = 38$, Age range = 26-57). The project was a significant part of the executives' grade in a class that they cared about (Executive Leadership). At the end of the group project, before receiving their grades, each individual reported their own and their group members' contributions to the group (in a round-robin design; Kenny, 1994) and rated their impressions of their group members. We tested whether overclaimers (those who

claimed to have contributed more than what their group members believed, factoring in both perceiver and target effects) were rated less positively by their group members than underclaimers, as our theory predicts.

Supporting our hypothesis, there was a negative association between overclaiming and leadership evaluations (four items standardized and averaged to form one index of leadership evaluations; *cooperation*, *leadership*, *achievement*, *equity*; α = .85), suggesting that individuals who overclaimed credit on their post-class evaluation form received lower leadership evaluations by their group members, β = -0.46, SE(β)= 0.05, $t(266)$ = -8.46, $p < .001$. These associations were robust controlling for other individual difference variables, such as the self-reported Big 5 personality traits, gender, and race/ethnicity.

However, we removed this study from the paper during the peer review process because the measure of overclaiming was private, not public. Thus, group members never learned whether a fellow group member overclaimed or underclaimed their contributions. Since the focus of our paper is on impression management motives, which requires that claiming behavior be public, this study is not as informative for testing our hypotheses. Interested readers can contact the corresponding author (Daniel Stein) to learn more about this study.

Prior Version of Experiment 1b

We ran another version of Experiment 1b with 870 adults from the U.S. on Amazon's Mechanical Turk (474 male, 392 female, 4 unreported, M_{age} = 37.31, SD_{age} = 11.03; https://aspredicted.org/blind.php?x=n8zd4r). We created an experiment with a 3 × 3 mixed design, where the first factor varied between-subjects (Claim Estimate Set: A, B, or C) and the

second factor varied within-subjects (claim viewed: overclaim, underclaim, accurate claim). In contrast to Experiment 1b, we created three Claim Estimate Sets (A, B, and C) that we used between-subjects for this study. Each set contained an overclaim, an underclaim, and an accurate claim as within- subject factors. While the accurate claim in all three sets was always 50%, the over- and underclaim amounts were informed by the actual average of the claims generated by subjects in Experiment 1a for each of the two goals (warmth-goal M = 54%, competence-goal M = 60%). We additionally included a third condition based on the attract-teammates-goal (M = 59%). The actual mean claims from Experiment 1a formed the overclaiming estimates because they were always above 50%, and we subtracted a symmetric amount from 50% to derive the underclaim estimates (40%, 41%, or 46%).

Across the three Claim Estimate Sets, evaluators viewed overclaimers (M = 4.64, SD = 1.56) as less warm than underclaimers (M = 4.74, SD = 1.40), $t(869) = 2.40$, $p = .016$, $d = 0.07$. Moreover, evaluators did not differ in judgments of competence between underclaimers (M = 4.64, SD = 1.43) and overclaimers (M = 4.70, SD = 1.56), $t(869) = -1.36$, $p = .174$, $d = -0.04$. However, evaluators did not want to work more with underclaimers (M = 4.69, SD = 1.49) than overclaimers in the future (M = 4.65, SD = 1.64), $t(869) = 0.69$, $p = .491$, $d = 0.05$.

We removed this experiment during the peer review process because the claim set manipulation did not cleanly manipulate over- and underclaiming. Evaluators believed that story writers had done slightly more than 50% on average (M = 52.15%, SD = 13.82%, *Median* = 50%). As a result, the overclaim condition (60%, 59%, or 54%) represented an overclaim of 8%, 7% or 2%, on average, whereas the underclaim condition (40%, 41%, or 46%) represented an underclaim of 12%, 11%, or 8%, on average. Thus, the manipulation was unbalanced, such that the underclaim was stronger than the overclaim, making it difficult to directly compare

evaluations of overclaimers to underclaimers. Although the results are consistent with our hypotheses, we wanted to include the cleaner version of the experiment in the paper.

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