

There's No Team in I: How Observers Perceive Individual Creativity in a Team Setting

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Creativity is highly valued in organizations as an important source of innovation. As most creative projects require the efforts of groups of individuals working together, it is important to understand how creativity is perceived for team products, including how observers attribute creative ability to focal actors who worked as part of a creative team. Evidence from three experiments suggests that observers commit the fundamental attribution error—systematically discounting the contribution of the group when assessing the creative ability of a single group representative, particularly when the group itself is not visually salient. In a pilot study, we found that, in the context of the design team at Apple, a target group member visually depicted alone is perceived to have greater personal creative ability than when he is visually depicted with his team. In Study 1, using a sample of managers, we conceptually replicated this finding and further observed that, when shown alone, a target member of a group that produced a creative product is perceived to be as creative as an individual described as working alone on the same output. In Study 2, we replicated the findings of Study 1 and also observed that a target group member depicted alone, rather than with his team, is also attributed less creative ability for uncreative group output. Findings are discussed in light of how overattribution of individual creative ability can harm organizations in the long run.

Keywords: perceptions of creative ability, teams, fundamental attribution error

And later I will be sitting in the audience and he will be talking about it as if it was his idea. I pay maniacal attention to where an idea comes from, and I even keep notebooks filled with my ideas. So it hurts when he takes credit for one of my designs.

Jonathan Ive, Senior Vice President of Industrial Design, Apple
(Describing a new product introduction by Steve Jobs in 2011;
Isaacson, 2011, p. 455)

Some of the most creative products of our time are the result of group efforts. Take, for example, creative output ranging from any Pixar film to the majority of groundbreaking advances in scientific research to Apple's many innovative products. Although the efforts of many are often required to produce "creative genius," history often tells the story of the solitary innovator, and vivid mental images of the lone creative genius are easy to conjure—Einstein at the chalkboard, Edison holding a light bulb, Steve Jobs presenting Apple's newest product. Thus, it is possible that the group behind creative output is often not recognized for collective creative efforts, as Jonathon Ive's quote suggests.

In the present research, we systematically investigate this notion, considering the group context as a potentially neglected factor impacting how people perceive the creative ability of individual group members. For instance, to explain innovation at Apple one must consider not only Steve Jobs' personal creative ability, but also the situational factors that fostered his and Apple's success, including the creative contributions received from Jonathan Ive, the larger design team, and countless others. In our research, we examine whether observers fail to account for the potential contribution of the group when perceiving the creative ability of an individual group member for output produced by the group. Further, we examine whether this tendency is especially likely to occur when observers are not specifically cued to consider the group's contribution.

Our research extends a body of work exploring the implications of the fundamental attribution error (Ross, 1977)—the tendency to underweight situational influences on individual behavior in favor of internal dispositional explanations—for the organizational question of how well people assess the ability of workers (Moore, Swift, Sharek, & Gino, 2010; Swift, Moore, Sharek, & Gino, 2013; Weber, Camerer, Rottenstreich, & Knez, 2001). Our research contributes novel insight to this question by considering the group as a situational force that perceivers may or may not fully consider. We argue that groups strongly influence individual performance, but are often neglected in the process of interpreting individual ability. Furthermore, we consider the open question of how subtle differences in how organizational products are represented—whether by one focal group member or the entire team responsible for the output—affects how individual ability is judged.

This article was published Online First November 27, 2017.

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Errors in Attribution

A person's behavior is influenced by factors both internal and external to that individual. That is, how a person acts is a product both of that person's internal beliefs, attitudes, and skills, and the demands and opportunities offered in a particular context. However, when making judgments about the causes of other people's behavior, observers tend to systematically favor dispositional explanations over situational explanations, attributing behavior more to a person's enduring personality or ability than to the particular forces affecting that person in a given situation (Ross & Nisbett, 2011). The tendency for observers to focus on an actor's disposition and neglect the power of the situation to elicit behavior is known as the fundamental attribution error (FAE; Ross, 1977) or correspondence bias (Gilbert & Malone, 1995). Decades of social psychological research have demonstrated errors in the attribution of attitudes (cf. Pronin, Gilovich, & Ross, 2004; Ross & Nisbett, 2011). For instance, in a classic study by Jones and Harris (1967), observers tended to perceive that a political essay written by a target reflected that target's "true" opinion even when observers were aware that the position taken in the essay had been assigned by the experimenter.

Research has examined the implications of the fundamental attribution error in organizational contexts, assessing observers' accuracy in the attribution and reward of individual ability (e.g., Humphrey, 1985; Moore et al., 2010). This research suggests that observers fail to adjust for the difficulty or ease of the performance context when assessing individual aptitude. For instance, Moore et al. (2010) found that even when observers were fully aware that some target individuals had taken an easy quiz whereas others had taken a hard quiz, observers still predicted that the quiz-takers who had completed the easy version of the quiz would perform better than those who had completed the hard version on a subsequent quiz of intermediate difficulty. Similarly, Swift, Moore, Sharek, and Gino (2013) found in the graduate school admissions process that admissions officers failed to adjust for the grading norms of different undergraduate institutions, even in situations in which they were explicitly made aware that some colleges are much tougher than others and thus that individual grade point averages across colleges did not indicate equivalent ability. Although motivated to make accurate decisions, admissions officers did not adjust sufficiently for the situational influence on students' observed performance when making admissions decisions. Thus, in both of these examples, individuals' performance was a product of both their ability and their situational context, but observers tended to give insufficient weight to context in influencing individuals' performance and overweight the individuals' dispositional ability.

Teams as a (Neglected) Situational Force

Our research is the first to directly consider the group as a neglected situational factor influencing attributions of individual ability. Oftentimes in organizations, employees work in teams on major projects. Thus, the group context must be considered when inferring individual ability from the group's collective performance. In this kind of situation, in order to accurately infer a target person's dispositional ability, observers must partition credit for group output between the situation (i.e., the group) and the individual focal group member. This partitioning may involve any kind of additive or multiplicative process whereby the abilities of

the individual group members in combination can be thought of as accounting for, or explaining, the group's output (Steiner, 1972). However, under such circumstances, research on the FAE suggests that observers may insufficiently discount individual dispositional ability when the individual performs as part of a team. That is, observers may fail to appropriately adjust for the influence of the team situation on individual performance when deciding how much credit to assign to the focal group member's dispositional ability.

In our research, we specifically examine observers' attribution of creative ability to an individual working in a creative team—assessing whether the influence of the group in producing creative work tends to be neglected when assessing the creativity of an individual member. We follow current practice to define creativity as having two elements, novelty and usefulness (Amabile, 1983, 1996). We define *ability* as a dispositional tendency to achieve high performance in a specific task domain across different situations. Attributions of creative ability are thus an observer's perceptions of an actor's stable tendency to generate novel, useful output across different situations on similar tasks.

Previous work on the antecedents to workplace creativity emphasizes the interaction between the person and their context in producing creativity. Creativity is conceptualized as not only a product of the individual talent of organizational members, but a result of the social and organizational situation in which individuals are embedded (Amabile, 1996; Woodman, Sawyer, & Griffin, 1993). Creative work done in teams may benefit from the collective creative abilities of all team members and also from the group-based context itself, which is likely to facilitate creative performance through several process-based mechanisms, including coordination, motivation, evaluation and feedback, and knowledge and information sharing (Shalley, Zhou, & Oldham, 2004; Taggar, 2002).

Although teams have not been previously considered as situational forces within the FAE literature, two lines of prior work are consistent with our prediction that teams may be neglected in judgments of individual ability. Research by Groysberg, Lee, and Nanda (2008) showed that when financial firms hired away top analysts from other firms, the "star's" performance tended to decline substantially in the new job; however, if the firm hired the star and his or her team, performance was sustained. These results suggest that the individual analyst's success was partially driven by the team's range of expertise and ability to coordinate work (Ren & Argote, 2011; Lewis, 2003). These group-based factors, however, appeared to have been neglected by some hiring firms when they tried to leverage the star's talent by hiring him or her alone.

Furthermore, in a laboratory setting, Weber et al. (2001) demonstrated that participants neglected the role of the team when they attributed leadership ability to a randomly assigned team leader. The researchers experimentally varied team size—drawing from previous research showing that individuals on smaller teams tend to contribute more than individuals on larger teams, and thus that small teams perform better than large teams at tasks requiring high levels of member contribution. Weber et al. (2001) showed that despite member contribution being a function of the context (i.e., the team's size), individuals on the teams attributed their team's performance to the effectiveness of the team's randomly assigned leader—with smaller teams rating their leader as more able and

talented than did larger teams, even though the main driver of success was a situational variable outside the leader's control: team size.

In the present research, we directly investigate the extent to which observers fail to adjust for the influence of the team on group-based performance when assessing the personal creative ability of a focal group member, as well as the circumstances that make this error more likely to occur. To test for the fundamental attribution error, we compare observers' judgments of the dispositional creative ability of an actor who worked as part of a team to observers' judgments of the dispositional creative ability of an actor who worked alone, holding constant the output created (Study 1 and Study 2). In the context of highly creative output, we predict that observers will fail to take into account the impact of the group context on highly creative performance—evaluating a focal actor who worked as part of a group as possessing similarly high levels of personal creative ability as an actor who worked alone on the same creative output.

Further, we propose that when assessing individual ability in a group context, observers may be most likely to commit the fundamental attribution error when not specifically cued to consider the group's influence; that is, when the group's salience is weak, rather than strong. Several different psychological mechanisms may give rise to the tendency for perceivers to attribute an actor's behavior to his or her dispositions and to underweight situational forces (see Gilbert & Malone, 1995). First, situational forces are often invisible to perceivers—consider, for instance, a person wearing team colors at a big sporting event who has no interest in the game but caved into the pressure from friends. Second, perceivers often underestimate the strength of situations, predicting, for example, that requests from experimenters, such as those in the classic Milgram experiment on obedience to authority, would not be sufficiently strong to persuade most people to comply (Bierbrauer, 1979). Finally, dispositional inferences often occur automatically and rapidly (Uleman, 1987) and perceivers adjust for situational forces only with effort or when they have sufficient attention. Although there is some evidence for cultural differences in committing the fundamental attribution error—with members of collectivist cultures attending more to situational forces than members of individualistic cultures—studies suggest that even collectivists initially draw dispositional inferences but attend more to salient situational cues and adjust for them (Choi & Nisbett, 1998; Choi, Nisbett, & Norenzayan, 1999).

Thus, in our research, we examine whether awareness of, and correction for, situational influences varies depending on the visual salience of the situational force (Storms, 1973; Taylor & Fiske, 1978). We manipulate the salience of a team as a situational force by varying whether the target actor's creative ability is evaluated in the presence of his team (strong situational salience) or alone (weak situational salience). We expect that although perceivers are unlikely to correct for situational influences about which they do not fully consider, when the situation is made salient to observers, situational information may be more likely to be integrated into judgments and used to discount dispositional explanations for behavior (Trope & Gaunt, 2000; Gilbert & Malone, 1995). Thus, in the context of highly creative output, we expect that observers will discount the focal team member's personal creativity when the salience of the team is strong, rather than weak.

Hypothesis 1: In the context of highly creative output, observers will attribute similar levels of creative ability to a focal actor who worked as part of a group on the output but is shown alone as an actor who worked alone on the same output and relatively less creative ability to the focal actor when shown with his group.

In addition to examining our predictions in the context of highly creative output, we also examined our predictions in the context of uncreative output. We expected a basic symmetry for creative and uncreative products: Just as we predict that observers will attribute too much individual ability for creative team products, we also expect that they will attribute too much individual inability for uncreative team products. Further, we predicted that, for an uncreative product, observers would perceive a focal group member who worked with a team but was depicted alone as having less creative ability than when the team context was made visually salient and that these negative perceptions would be similar to those of an individual described as working alone.

Hypothesis 2: In the context of uncreative output, observers will attribute similar levels of creative ability to a focal actor who worked as part of a group on the output but is shown alone as an actor who worked alone on the same output and relatively more creative ability to the focal actor when shown with his group.

In sum, we expect that when the target is known to have worked in a group but is depicted alone, much like Steve Jobs, observers will be especially likely to focus on the dispositional creative aptitude of the target as the basis for performance and therefore commit the fundamental attribution error—assigning high and low levels of creative ability to the target as if that person alone has made the group product. However, we predict that when the target is evaluated in the visual presence of other members, rather than alone, observers will adjust for the contribution of the team and discount the target's creativity (or lack of creativity).

Overview of Studies

In a pilot study and two main experiments, we examined how observers attribute creative ability to individual group members for a group product. In our pilot study, we tested our manipulation of group salience, experimentally manipulating whether a target actor is visually depicted alone (weak group salience) rather than with his team (strong group salience), holding constant the group's output, in order to assess whether observers attribute more creative ability to the target when the salience of the group context is weak, rather than strong. In Study 1, to assess Hypothesis 1, we tested whether observers attribute similar levels of creative ability to a target-group member depicted alone as they do to an individual who worked alone, again holding the output itself constant. We also assessed whether observers attributed less creative ability to the target when the salience of the group context was strong compared to both when it was weak and when the target worked alone. Study 2 again tested Hypothesis 1 by examining attribution of ability for creative output, and tested our predictions in the context of attributions for uncreative output (Hypothesis 2).

Pilot Study

Before directly testing our hypotheses, we conducted a pilot study to assess whether the salience of the group context influences observers' assignment of creative ability to an individual group member for group output. Consistent with the notion that individuals are especially prone to commit the fundamental attribution error when not specifically cued to consider the influence of the situation on behavior (Trope & Gaunt, 2000; Gilbert & Malone, 1995), we expected that observers would attribute the creativity of group products more to an individual focal actor's disposition (i.e., his creative ability) when the salience of the situation—his team—was weak rather than strong. Thus, in this study, participants read about Jonathan Ive, head of the design team at Apple, who has helped create many of Apple's most innovative products. All participants were explicitly told that these Apple products were the result of the design team's efforts. Participants then saw a photo of Ive, depicted either with his team or alone, and were subsequently asked to evaluate Ive's creative ability. We predicted that participants who saw a photo of Ive with his team (strong group salience) would adjust more for the group's influence on Apple's creative output and discount Ive's personal creative ability compared to participants who saw a photo of Ive alone (weak group salience).

Method

Six hundred 28 participants (50% female; $M_{\text{age}} = 36.38$, $SD_{\text{age}} = 11.63$; all U.S. residents) were recruited from Amazon's Mechanical Turk. Participants had an average of 14.49 years of full time work experience ($SD = 10.82$). Participants received compensation of 30 cents. All participants read that since 1996, Jonathan Ive has been the head of the team responsible for designing major Apple products such as the iPhone, iPad, and Macbook. After reading this information, participants were assigned to view one of two photos of Jonathon Ive. Participants in the weak group salience condition saw a photo of Ive alone. Participants in the strong group salience condition saw a photo of Ive with his team.¹

While viewing the photo, participants were asked to respond to two items. On a 100-point scale (0 = *not creative*, 50 = *moderately creative*, 100 = *very creative*), participants were asked to rate (a) how creative Jonathan Ive is on the basis of the design of Apple products over the last decade: "Based on the design of Apple products over the last decade, how creative do you think Jonathan Ive is?" and (b) how creative Jonathan Ive would be if he were to work on a project designing the next major Apple product by himself: "Imagine if Jonathan Ive were to work on a project to design the next major Apple product by himself, how creative do you think Jonathan Ive would be in designing this product?" The inclusion of the second item allowed us to more precisely assess participants' perception of Ive's personal creative potential; that is, his individual, enduring creative ability separate from that of his design team. These two items were averaged to form a perceived target creative ability composite ($r = .81$, $p < .001$). Participants were also asked to rate how much they liked Apple products on a seven-point scale ranging from 1 (*I do not like Apple products at all*) to 7 (*I like Apple products very much*) in order to account for the possibility of systematic differences on this dimension across our experimental conditions influencing our results.

Results

There was no difference across conditions in participants' liking of Apple products, $t(1,624) = 1.09$, $p = .276$. We found that, consistent with our expectation that a stronger dispositional inference would be made about a target group member when the salience of the team context was weak rather than strong, participants who saw a photo of Jonathon Ive alone rated him as significantly more creative ($M = 76.63$, $SD = 18.87$) compared with participants who saw a photo of Ive with his team ($M = 71.96$, $SD = 18.80$), $t(626) = 3.11$, $p = .002$, $d = .25$. See Table 1 for pilot study descriptive statistics by condition.

Study 1

Our pilot study provided initial evidence that observers' judgments about an individual target's personal creative aptitude are influenced by the salience of his team context, with more creativity attributed to the target's dispositional ability for team-generated output when the target was visually represented by himself rather than with his team. In Study 1, our goals were threefold. First, we wanted to examine whether the attribution of more creative ability to a group member depicted alone rather than with his team constitutes an attribution error—that is, a failure to adjust for the group context when making dispositional inferences. Thus in Study 1, in addition to the two experimental conditions employed in the pilot study, we introduced a third benchmark condition in which the target was visually depicted alone and was also described as working alone on the creative output, rather than with a team. If we are correct that observers are prone to commit the fundamental attribution error when the team is not visually salient—failing to adjust for the team context when judging individual creativity—then a target-group member depicted alone should be awarded a similar amount of creative ability as an individual target who actually worked alone. We further expected, consistent with the pilot study results, that this erroneous tendency to over-attribute creative ability to the target-group member would be diminished once the salience of the group was made stronger—that is, when the focal group member was visually depicted with his team.

Second, observers in the pilot study were asked to assess the creative ability of Jonathan Ive, a potentially familiar public figure who was described to participants as the leader of the Apple design team. Although this description was held constant across experimental conditions, it is possible that when depicted alone, Ive's status as the team leader may have been more salient and could have led to a boost in perceived creativity, compared to when he was depicted with his team. Therefore, in Study 1, the focal team member being evaluated was an unknown actor and not described as the team leader.

¹ Photos of Ive and the team members were individual headshots against a white background. Headshots were taken from a Google Image search for the term "Apple design team." In the condition in which Ive was depicted alone, his headshot was presented alone. In the condition in which Ive was depicted with his team, the same headshot of Ive was shown and beside his photo, four headshots of individual team members were shown. Photos of two different sets of team members were used to assess the robustness of results across specific combinations of individuals. Results held across both sets of photos and were thus aggregated. Materials used in this study are available from the researchers on request.

Table 1
Pilot Study Descriptive Statistics by Condition

Condition	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE</i>
Weak group salience	76.63	18.87	315	1.06
Strong group salience	71.96	18.80	313	1.06
Total	74.30	18.97	628	.76

Third, we wanted to assess our predictions using a sample of managers—that is, those individuals responsible for assessing employee performance and allocating workplace resources and reward. Thus we recruited participants from Clearvoice who were full time employees with at least one direct report. All participants in the sample indicated that they had one or more direct reports when asked, “In your role within your company how many people do you supervise?”

Method

The studies reported here were approved by the Institutional Review Board at Duke University (Protocol #A0837) and conducted as part of Min B. Kay’s dissertation on how social factors affects perceptions of individual creativity. The protocol was titled “Demographic diversity on perceived creativity using company logos.”

Five hundred 71 managerial level employees (44% female; $M_{\text{age}} = 45.43$, $SD_{\text{age}} = 13.5$; all U.S. residents) were recruited from Clearvoice. Participants had an average of 24.46 years of full time work experience ($SD = 20.57$). Participants worked in 24 different industries. The most common industries were Food Services/Hospitality (10%), Sales/Retail/Business Development (9%), Education/Training (7%) and Manufacturing/Production/Operations (7%). We paid Clearvoice \$2.50 per completed survey.² Participants received compensation of \$.40 from Clearvoice.

Participants were assigned to one of three group salience conditions. Participants in both the weak group salience condition and the strong group salience condition read about an individual who was part of a team that had created a company logo. Participants in the weak group salience condition saw a photo of the individual alone. Participants in the strong group salience condition saw a photo of the individual with his team. Participants in the worked alone condition read about an individual who had created a company logo by himself and saw a photo of the individual alone. A photo of a Caucasian male was used across all conditions for the target individual.³

All participants were then assigned to view a photo of a creative logo. To hold constant participants’ impression of the logo, participants were told that an expert panel had given it a creativity score of 90 out of 100. Finally, participants completed two items assessing their perceptions of the target’s creativity and individual creative potential. First, on a 100-point scale, participants rated how creative they thought the target person was: “How creative do you think Dave is?” (0 = *not creative*, 50 = *moderately creative*, 100 = *very creative*). Second, on the same 100-point scale, participants rated how creative the target would be if he were to design another company logo by himself: “For the next project, Dave will be designing another company logo by himself. How creative do you think Dave will be in designing this company

logo?” These two items were averaged to form a perceived target creative ability composite ($r = .82$, $p < .001$).

Results

To test Hypothesis 1, we conducted two sets of planned contrasts comparing the means on perceived creative ability across our three experimental conditions (worked alone vs. weak group salience vs. strong group salience). Consistent with our prediction that when the salience of the group is weak, observers will commit the fundamental attribution error—failing to account for the team context on behavior (the creative output) when making judgments about a target’s dispositional ability—planned contrasts revealed that participants attributed the same high level of creativity when the target was shown alone (weak group salience condition) or worked alone ($M_{\text{weak group salience}} = 72.51$, $SD = 20.04$ vs. $M_{\text{worked alone}} = 73.65$, $SD = 18.57$; $\psi = 1.14$), $t(569) = .571$, $p = .568$, $d = .06$. Further, supporting our prediction that when the group context is made salient, observers will adjust to account for its influence on behavior when assigning individual credit, a second set of planned contrasts revealed that the target was rated significantly lower on creative ability when depicted with his team (strong group salience condition; $M = 67.81$, $SD = 20.12$) compared with the target who was shown alone (weak group salience condition) and the target who worked alone ($\psi = 10.54$), $t(569) = 3.01$, $p = .003$, $d = .27$. Together, these results support Hypothesis 1. See Table 2 for Study 1 descriptive statistics by condition.

Study 2

In Study 2, we examined errors in dispositional attributions for both a creative product (as in Study 1) and an uncreative product. We expected that for a creative product, observers would perceive a focal group member who worked with a team but was depicted alone as having more creative ability than when the team context was made visually salient and that these positive perceptions would be similar to those of an individual described as working alone (Hypothesis 1), replicating Study 1’s results. We predicted that, for an uncreative product, observers would perceive a focal group member who worked with a team but was depicted alone as having less creative ability than when the team context was made visually salient and that these negative perceptions would be similar to those of an individual described as working alone (Hypothesis 2). We also included a baseline control condition in which no product was shown, in order to assess baseline attributions of creative ability to the focal actor across our three group salience conditions. We included a baseline control condition to ensure that there was no effect of our group salience manipulation itself. Specifically, we wanted to ensure that there were no baseline

² This payment amount was lower than usual due to a special arrangement between the panel company used and the researchers’ university.

³ Photos of two different individual males were used and photos of three different teams were used to assess the robustness of results. Both individual males were present in one of the three team photos so participants who were assigned to view this team photo assessed one of the two focal targets, resulting in four possible sets of stimuli that participants were randomly assigned to in the Strong Group Salience Condition. There were no effects of specific photos used (all $ps > .30$), so results were aggregated. Materials used in this study are available from the researchers on request.

Table 2
Study 1: Descriptive Statistics by Condition

Condition	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE</i>
Worked alone	73.65	18.57	195	1.33
Weak group salience	72.51	20.04	193	1.44
Strong group salience	67.81	20.12	184	1.48
Total	71.38	19.70	572	.82

differences in observers' beliefs about the typical creative ability of individuals pictured with or without a team when no diagnostic information about performance was provided. Thus the design was a 3 (group salience: worked alone vs. weak vs. strong) \times 3 (output type: baseline vs. creative vs. uncreative) between-subjects factorial.

Method

Participants ($N = 1,236$; 56% female; $M_{\text{age}} = 38.61$, $SD_{\text{age}} = 8.61$; all U.S. residents) were recruited from Clearvoice. We paid Clearvoice \$1.00 per completed survey. Participants received compensation of \$.25 from Clearvoice. Participants were assigned to one of three group salience conditions (worked alone vs. weak group salience vs. strong group salience). Materials were identical to those used in Study 1. Participants in the strong group salience condition were randomly assigned to view one of three different team photos, thus we increased the cell sample in the strong group salience condition, as compared with the weak group salience condition and the worked alone condition, in order to have sufficient statistical power to assess whether there was an effect of particular team photo used. Participants were also assigned to either view a photo of a creative logo, an uncreative logo, or no logo. To hold constant participants' impression of the creative and uncreative logos, participants who saw the creative logo were told that an expert panel had given it a creativity score of 90 out of 100 whereas participants who saw the uncreative logo were told that an expert panel had given it a creativity score of 40 out of 100.

Finally, participants completed the same two items assessing their perceptions of the target's creativity and individual creative potential as used in Study 1. First, on a 100-point scale, participants rated how creative they thought the target person was, "How creative do you think Dave is?" (0 = *not creative*, 50 = *moderately creative*, 100 = *very creative*). Second, on the same 100-point scale, participants rated how creative the target would be if he were to design another company logo by himself: "For the next project, Dave will be designing another company logo by himself. How creative do you think Dave will be in designing this company logo?" The two items were combined to form a perceived target creative ability composite ($r = .84$, $p < .001$).

Results

We conducted two sets of orthogonal planned contrasts comparing means on perceived creative ability across our three group salience conditions (worked alone vs. weak group salience vs. strong group salience) within each output type condition (baseline vs. creative vs. uncreative). Table 3 contains the descriptive statistics by condition. As shown in Figure 1, within the creative

Table 3
Study 2: Descriptive Statistics by Condition

Condition	Output Type			Total
	No logo	Highly creative logo	Uncreative logo	
Worked alone				
<i>M</i>	59.91	72.96	40.61	58.12
<i>SD</i>	18.18	22.82	20.14	24.48
<i>n</i>	74	82	77	233
<i>SE</i>	2.11	2.14	2.30	1.60
Weak group salience				
<i>M</i>	60.58	72.41	44.83	59.53
<i>SD</i>	18.66	18.99	20.91	22.43
<i>n</i>	80	78	74	232
<i>SE</i>	2.09	2.15	2.43	1.47
Strong group salience				
<i>M</i>	62.11	65.56	56.50	61.37
<i>SD</i>	17.47	17.28	18.24	18.04
<i>n</i>	259	254	258	771
<i>SE</i>	1.08	1.08	1.14	.65
Total				
<i>M</i>	61.42	68.32	51.40	60.41
<i>SD</i>	17.81	19.09	20.24	20.28
<i>n</i>	413	414	409	1236
<i>SE</i>	.88	.94	1.00	.58

output condition, a first set of planned contrasts revealed that participants who evaluated the target shown alone (weak group salience condition) attributed the same high level of creativity to him for group output ($M = 72.41$, $SD = 18.99$), as participants who evaluated the target who worked by himself (worked alone condition), ($M = 72.96$, $SD = 22.82$), $\psi = .55$, $F(1, 1227) = .035$, $p = .852$, $d = .03$. Further, to test our prediction that observers will adjust for a team's influence on behavior when the target was depicted with his team (strong group salience condition), a second set of planned contrasts revealed that the target shown with his team was rated as significantly less creative ($M = 65.56$, $SD = 17.28$) compared to the target who was shown alone (weak group salience condition) and the target who worked alone ($\psi = 14.25$), $F(1, 1227) = 14.40$, $p < .001$, $d = .37$. Together these results support Hypothesis 1.

As predicted, planned contrasts revealed a symmetrical but opposite pattern of results for observers who saw the uncreative logo, supporting Hypothesis 2. Observers attributed the same low

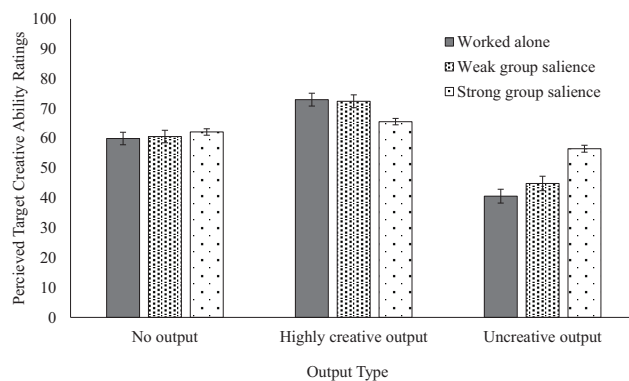


Figure 1. Effects of group salience and output type on perceived target creative ability ratings (Study 2).

level of creative ability to the target who was shown alone (weak group salience condition; $M = 44.83$, $SD = 20.91$) as the target who worked alone ($M = 40.61$, $SD = 20.14$; $\psi = -4.22$), $F(1, 1227) = 1.95$, $p = .163$, $d = .21$, and both of these ratings were lower than when the target was depicted with his team (strong group salience condition), ($M = 56.50$, $SD = 18.24$; $\psi = -27.56$), $F(1, 1227) = 52.33$, $p < .001$, $d = .71$.

For observers for whom no logo was presented (baseline condition), there was no effect of group salience condition on ratings of target creative ability ($M_{\text{worked alone}} = 59.91$, $SD = 18.18$ versus $M_{\text{weak group salience}} = 60.58$, $SD = 18.66$ versus $M_{\text{strong group salience}} = 62.11$, $SD = 17.4$) worked alone versus weak group salience ($\psi = -.67$), $F(1, 1227) = .049$, $p = .825$, $d = .04$; worked alone and weak group salience versus strong group salience ($\psi = -3.73$), $F(1, 1227) = .972$, $p = .324$, $d = .10$.⁴ The null effect of group salience on perceived target creativity when no output is present suggests that participants were not using the presence or absence of a team to draw additional inferences about the target person's ability. See Table 2 for Study 2 descriptive statistics by condition.⁵

General Discussion

The present research investigated how a team context influences observers' perceptions of an individual team member's creative ability. In a pilot study, Jonathan Ive was rated as more creative when he was depicted alone than with his team, even though in both cases the Apple products were described as the result of team efforts. Ive's ability was discounted when he was evaluated with other members because the visual salience of the group members reminded observers that the group also contributed to the development of innovative designs. In Study 1, we conceptually replicated this effect and also demonstrated that a target group member depicted alone is evaluated as similarly creative as a target individual who worked alone on the same creative product, demonstrating a clear attributional error. Study 1 also demonstrated our effect in a sample of managers, extending the practical implications of our findings.

Study 2 built on this finding by demonstrating that the presence of others affects perception of creative ability differently depending on the objective quality of the output. Across different conditions, participants were shown a creative logo, an uncreative logo, or no logo. When a creative company logo was attributed to a group, a target shown alone was rated to be highly creative—as highly creative as when the same logo was attributed to a single person working alone. When an uncreative company logo was attributed to a group, a target shown alone was perceived to be significantly less creative—as uncreative as when the same logo was attributed to a single person working alone. Thus, observers were insensitive to the team context when targets were shown alone. However, when provided with a strong situational cue (the picture of the group), observers significantly adjusted their perceptions of the target individual's creative abilities toward the base rate level observed in the no logo control group. When shown the group photo, observers effectively gave the target less credit for the creative logo and less blame for the uncreative logo.

Results from these three experiments together suggest that (a) holding the creative product itself constant, observers are prone to attribute similar levels of personal creativity ability to an individ-

ual shown alone who worked as part of a team on the product as an individual who worked by himself on the product (b) this tendency is ameliorated when the individual target is pictured with his team. This exaggerated perception of individual ability benefited the target for creative outputs but cost the target for uncreative outputs.

Limitations and Future Directions

In the present studies, we measured attributions of creative ability by asking participants to respond to two simple questions on a Likert-type scale: (a) How creative they thought the target was and (b) how creative they thought the target would be working on a future project by himself. The first question was intended to be a general assessment of the target's dispositional creativity, but it should be noted that it is potentially ambiguous, given that there was also a (group-made) product present when this judgment was being made and therefore responses could reflect both stable dispositional attributions to the target and momentary assessments of the product. Therefore, we included the second question—asking participants to evaluate the creativity of the target if he worked on a product alone in the future—to resolve this ambiguity. Responses on these two questions were highly correlated, suggesting that they are both tapping into judgments of the focal target's personal dispositional creativity. However, an important limitation of this two-question measurement approach is that it remains unclear what kind of assumptions are informing participants' labeling of the target as "creative." That is, we chose to let participants construe "creative" themselves rather than provide them with more specific questions delineating the facets of what it means to be "creative." Thus, a potential limitation of our research is that we did not develop a theoretically driven conceptual definition of "perceived creative ability" prior to developing our measure. Lay perceptions of creativity is a relatively new and growing area of research (cf. Loewenstein & Mueller, 2016).

⁴ To investigate the effect of situational cues on the discounting of target creativity, the three creativity ratings (No logo, Creative logo and Uncreative logo) in the Strong Group Salience Condition were compared. Using the rating when the logo was not shown as a base rate of individual creativity ($M = 61.59$, $SD = 17.95$), the target was rated lower with the uncreative logo ($M = 56.27$, $SD = 18.89$, $t(515) = 3.27$, $p < .001$, $d = .28$) and higher with the creativity logo ($M = 65.71$, $SD = 18.08$, $t(511) = 2.59$, $p < .01$, $d = .22$). Thus, participants used the situational (group) cue to discount dispositional creativity, but the attributions still differed from the base rate of individual creativity.

⁵ We oversampled participants in the Strong Group Salience Condition because we used different group photos in this condition, and wanted to have sufficient statistical power to check for differences between photos used within this condition. We found no differences between specific team photos used, so results were aggregated. Because we oversampled participants in the Strong Group Salience Condition, these cells were larger than the other cells in the study. To make sure that none of our conclusions were influenced by unequal cell sizes, we reran all tests reported in the text with five samples created by randomly excluding participants from the Strong Group Salience conditions to equate cell sizes. We created five samples, rather than one sample, to avoid the possibility of drawing conclusions from an unrepresentative result. Five samples provide a sense of what range of conclusions are plausible. In every case, conclusions are not changed. The interaction F test was similar across all five samples (ranging from 8.24 to 9.79) and the contrasts all remained significant at the levels reported in the text. See Appendix A for details on this procedure and summary of results.

Future research is needed to develop a theoretically driven, comprehensive conceptual definition of perceived creative ability and systematically develop a validated scale measuring perceived creative ability which goes further to establish convergent and discriminant validity. Such a scale could reveal the extent to which managers use perceived employee creative ability as an input into other important judgments, such as employee evaluations and compensation decisions.

It also remains to be tested whether the effects we demonstrate extend to other types of attributions beyond creative ability. It is possible that when the salience of the group is weak, observers may tend to discount the contribution of the group when assessing the single group representative along trait dimensions other than creativity, such as efficiency or resourcefulness. It may also be the case that observers are especially prone to commit the fundamental attribution error in the context of creativity evaluation, as observers may hold a particularly dispositionally oriented lay theory of creative ability—viewing creativity as residing within individuals rather than emerging as a result of individuals working together. Future research is needed to examine the robustness and potential boundary conditions of our findings in the context of other types of trait evaluations.

In addition, in the current studies, the basic demographic characteristics of the target being evaluated were held constant—the target was always a Caucasian male. Future studies are needed to assess whether observers similarly fail to adjust for the contribution of the group when the target is woman or a racial/ethnic minority. For instance, when the salience of the group is weak, it is possible that when the focal group members is a demographic minority, she or he may be given less creative credit for group output (i.e., observers may be less likely to discount the group context) compared to when the focal group member is a Caucasian male (Heilman, & Haynes, 2005). While we did vary the demographic makeup of the team itself in our experiments, finding that observers similarly discounted the creativity of the target (a Caucasian male) when he was pictured with teams varying in demographic make-up, future work is also needed to more systematically explore how demographic matching and mismatching between the target and the team might moderate our results.

Furthermore, our research provides insight into biases in creativity evaluation in contexts in which only one team member is evaluated—future research is needed to examine how creative ability is assigned to individual team members in contexts in which multiple team members are evaluated concurrently (cf. Savitsky et al., 2005). We also hope future research will explore new aspects of how lay theories about groups affect the assessment of individual and group abilities. For instance, what are observers' lay theories of group creativity and how might they underlie observers' tendency to discount individual creativity when the salience of the group is strong (rather than weak)? Future studies could determine whether the creativity of a group is conceived of as the sum or average of the individual creativity of the group's members or whether group creativity is understood as emergent from the group processes themselves.

Implications

This research extends a long tradition of research on the FAE by applying it to an important but less studied situational cause: The

group as an important but neglected situational influence when perceivers draw inferences about individual ability. Prior research suggests that firms may undervalue the role of teams when judging the performance of “star” financial analysts (Groysberg, Lee, & Nanda, 2008). However, although this previous work is suggestive of misjudgment on the part of observers, the authors do not explain their findings in terms of the fundamental attribution error and do not provide any direct evidence of judgment error. Thus, the current research builds on these previous findings by experimentally demonstrating that people fail to adjust for the group as a situational cause of performance when explaining individual behavior—unless the group's existence is made highly salient.

By examining group salience as a moderator, our results also provide insight into the psychological processes underlying the FAE. In demonstrating that the visual salience of the situation—in our research, the group context—moderates observers' tendency to commit the FAE, our findings appear to be consistent with the notion that one reason that observers are prone to commit the fundamental attribution error is that they fail to correct for their initial dispositional attributions and adjust to account for the influence of the situation on a target's behavior, unless they are specifically cued to do so (Gilbert & Malone, 1995). Our results suggest that visually presenting the target with his social context (e.g., his team) acts as a correction cue, prompting observers to adjust for the influence of this context on behavior when judging the target's ability (Storms, 1973; Taylor & Fiske, 1978).

Our research also has interesting practical implications for both the individual and the organization. Assigning appropriate credit is desirable from an organizational leadership perspective. For instance, leaders who give appropriate credit to organizational members for collective output are likely to be seen as fair, build a sense of community, communicate that their team is valued, and thereby motivate those who work with them (Colquitt et al., 2001; Cowherd & Levine, 1992; Hollander, 1980; Rodgers, Sauer, & Proell, 2013). Conversely, as Jonathan Ive's reaction to not receiving credit illustrates, failure to appropriately share credit is likely to harm organizational relationships in the long run by creating feelings of unfairness and resentment. The evidence we present, particularly with the sample of managers in Study 1, suggests that those individuals responsible for allocating organizational rewards such as promotions and bonuses may potentially neglect the role of the team when assessing individual employees' ability, at least in contexts in which only one member of a team is being evaluated. Such a tendency is likely to affect organizational outcomes involving fairness, motivation, and team cohesion. Further, our studies suggest a potential intervention to diminish this bias: designing evaluative contexts in organizations that make the contributions of the team salient. This could be accomplished by having teams present their work together or presenting evaluators with reminders of the other team members' contributions when evaluating individual employee ability (cf. Savitsky, Van Boven, Epley, & Wight, 2005).

The current research also complements prior work on narcissistic behavior among CEOs. Chatterjee and Hambrick (2007) found that CEOs who placed themselves alone in photographs in corporate reports also tended to exhibit other narcissistic behavior; together, these factors predicted important strategic decisions, such as engaging in more mergers. This research operated under the assumption that narcissists would be motivated (consciously or

not) to claim credit for company success by being pictured alone. Our work suggests that a CEO who undertakes such a maneuver is likely to be successful—observers do in fact give more credit to individuals who are pictured alone than in a team.

In organizations, creative work is increasingly being done by teams, rather than by individuals working alone (Uzzi, Mukherjee, Stringer, & Jones, 2013; Wuchty, Jones, & Uzzi, 2007). Individuals may reap the benefit of different evaluation contexts depending on the objective quality of group output; specifically, being viewed alone is beneficial for highly creative products, but being seen as part of the crowd allows one to hide for uncreative products. However, if a single individual is seen as the creative genius behind a collective effort, it may put the organization at risk. When people outside the company saw Jobs as Apple's only "idea man," it upset Jonathan Ive because that made them "vulnerable as a company" (Isaacson, 2011)—his assertion was confirmed when Apple stocks oscillated as a direct function of Jobs' struggling health in the later years of his regime as the CEO (Collingwood, 2009). After the passing of Jobs, more people have started to recognize Ive as the creative engine behind Apple. Although this may satisfy Ive, it ironically puts Apple in a vulnerable situation similar to when Jobs was alive. Apple's ultimate success arises from fostering and organizing a system full of creative teams; the decision to put a single face on creativity distracts outside observers from recognizing the broad institutional capabilities that drive creativity. In sum, this work provides new insights about the inferences people make when judging creativity in groups.

References

- Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology, 45*, 357–376. <http://dx.doi.org/10.1037/0022-3514.45.2.357>
- Amabile, T. (1996). *Creativity in context*. New York, NY: Westview Press.
- Bierbrauer, G. (1979). Why did he do it? Attribution of obedience and the phenomenon of dispositional bias. *European Journal of Social Psychology, 9*, 67–84. <http://dx.doi.org/10.1002/ejsp.2420090106>
- Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly, 52*, 351–386. <http://dx.doi.org/10.2189/asqu.52.3.351>
- Choi, I., & Nisbett, R. E. (1998). Situational salience and cultural differences in the correspondence bias and actor-observer bias. *Personality and Social Psychology Bulletin, 24*, 949–960. <http://dx.doi.org/10.1177/0146167298249003>
- Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal attribution across cultures: Variation and universality. *Psychological Bulletin, 125*, 47–63. <http://dx.doi.org/10.1037/0033-2909.125.1.47>
- Collingwood, H. (2009, June). Do CEOs matter? *The Atlantic*. Retrieved from <http://www.theatlantic.com/magazine/archive/2009/06/do-ceos-matter/307437/>
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86*, 425–445. <http://dx.doi.org/10.1037/0021-9010.86.3.425>
- Cowherd, D. M., & Levine, D. I. (1992). Product quality and pay equity between lower-level employees and top management—An investigation of distributive justice theory. *Administrative Science Quarterly, 37*, 302–320. <http://dx.doi.org/10.2307/2393226>
- Dimov, D. (2007). Beyond the single-person, single-insight attribution in understanding entrepreneurial opportunities. *Entrepreneurship Theory and Practice, 31*, 713–731. <http://dx.doi.org/10.1111/j.1540-6520.2007.00196.x>
- Elsbach, K. D., & Kramer, R. M. (2003). Assessing creativity in Hollywood pitch meetings: Evidence for a dual-process model of creativity judgments. *Academy of Management Journal, 46*, 283–301. <http://dx.doi.org/10.2307/30040623>
- Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin, 117*, 21–38. <http://dx.doi.org/10.1037/0033-2909.117.1.21>
- Groysberg, B., Lee, L. E., & Nanda, A. (2008). Can they take it with them? The portability of star knowledge worker's performance. *Management Science, 54*, 1213–1230. <http://dx.doi.org/10.1287/mnsc.1070.0809>
- Heilman, M. E., & Haynes, M. C. (2005). No credit where credit is due: Attributional rationalization of women's success in male-female teams. *Journal of Applied Psychology, 90*, 905–916. <http://dx.doi.org/10.1037/0021-9010.90.5.905>
- Hollander, E. P. (1980). Leadership and social exchange. In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advance in theory and research* (pp. 103–118). New York, NY: Plenum Press. http://dx.doi.org/10.1007/978-1-4613-3087-5_5
- Humphrey, R. (1985). How work roles influence perception: Structural-cognitive processes and organizational behavior. *American Sociological Review, 50*, 242–252. <http://dx.doi.org/10.2307/2095412>
- Isaacson, W. (2011). *Steve Jobs*. New York, NY: Simon & Schuster.
- Jones, E. E., & Harris, V. A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology, 3*, 1–24.
- Kasof, J. (1995). Explaining creativity: The attributional perspective. *Creativity Research Journal, 8*, 311–366. http://dx.doi.org/10.1207/s15326934crj0804_1
- Lewis, K. (2003). Measuring transactive memory systems in the field: Scale development and validation. *Journal of Applied Psychology, 88*, 587–603.
- Loewenstein, J., & Mueller, J. (2016). Implicit theories of creative ideas: How culture guides creativity assessments. *Academy of Management Discoveries, 2*, 320–348. <http://dx.doi.org/10.5465/amd.2014.0147>
- Moore, D. A., Swift, S. A., Sharek, Z. S., & Gino, F. (2010). Correspondence bias in performance evaluation: Why grade inflation works. *Personality and Social Psychology Bulletin, 36*, 843–852. <http://dx.doi.org/10.1177/0146167210371316>
- Pronin, E., Gilovich, T., & Ross, L. (2004). Objectivity in the eye of the beholder: Divergent perceptions of bias in self versus others. *Psychological Review, 111*, 781–799. <http://dx.doi.org/10.1037/0033-295X.111.3.781>
- Ren, Y., & Argote, L. (2011). Transactive memory systems 1985-2010: An integrative framework of key dimensions, antecedents, and consequences. *Academy of Management Annals, 5*, 189–229.
- Rodgers, M. S., Sauer, S. J., & Proell, C. A. (2013). The lion's share: The impact of credit expectations and credit allocations on commitment to leaders. *The Leadership Quarterly, 24*, 80–93. <http://dx.doi.org/10.1016/j.leaqua.2012.08.003>
- Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. *Advances in Experimental Social Psychology, 10*, 173–220. [http://dx.doi.org/10.1016/S0065-2601\(08\)60357-3](http://dx.doi.org/10.1016/S0065-2601(08)60357-3)
- Ross, L., & Nisbett, R. E. (2011). *The person and the situation: Perspectives of social psychology*. London, UK: Pinter & Martin.
- Ross, M., & Sicoly, F. (1979). Egocentric biases in availability and attribution. *Journal of Personality and Social Psychology, 37*, 322–336. <http://dx.doi.org/10.1037/0022-3514.37.3.322>
- Savitsky, K., Van Boven, L., Epley, N., & Wight, W. M. (2005). The unpacking effect in allocations of responsibility for group tasks. *Journal of Experimental Social Psychology, 41*, 447–457. <http://dx.doi.org/10.1016/j.jesp.2004.08.008>
- Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from

- here? *Journal of Management*, 30, 933–958. <http://dx.doi.org/10.1016/j.jm.2004.06.007>
- Steiner, I. D. (1972). *Group processes and group productivity*. New York, NY: Academic.
- Storms, M. D. (1973). Videotape and the attribution process: Reversing actors' and observers' points of view. *Journal of Personality and Social Psychology*, 27, 165–175. <http://dx.doi.org/10.1037/h0034782>
- Swift, S. A., Moore, D. A., Sharek, Z. S., & Gino, F. (2013). Inflated applicants: Attribution errors in performance evaluation by professionals. *PLoS ONE*, 8, e69258. <http://dx.doi.org/10.1371/journal.pone.0069258>
- Taggar, S. (2002). Individual creativity and group ability to utilize individual creative resources: A multilevel model. *Academy of Management Journal*, 45, 315–330. <http://dx.doi.org/10.2307/3069349>
- Taylor, S. E., & Fiske, S. T. (1978). Salience, attention, and attribution: Top of the head phenomena. *Advances in Experimental Social Psychology*, 11, 249–288. [http://dx.doi.org/10.1016/S0065-2601\(08\)60009-X](http://dx.doi.org/10.1016/S0065-2601(08)60009-X)
- Trope, Y., & Gaunt, R. (2000). Processing alternative explanations of behavior: Correction or integration? *Journal of Personality and Social Psychology*, 79, 344–354. <http://dx.doi.org/10.1037/0022-3514.79.3.344>
- Uleman, J. S. (1987). Consciousness and control: The case of spontaneous trait inferences. *Personality and Social Psychology Bulletin*, 13, 337–354.
- Uzzi, B., Mukherjee, S., Stringer, M., & Jones, B. (2013). Atypical combinations and scientific impact. *Science*, 342, 468–472. <http://dx.doi.org/10.1126/science.1240474>
- Weber, R., Camerer, C., Rottenstreich, Y., & Knez, M. (2001). The illusion of leadership: Misattribution of cause in coordination games. *Organization Science*, 12, 582–598.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18, 293–321.
- Wuchty, S., Jones, B. F., & Uzzi, B. (2007). The increasing dominance of teams in production of knowledge. *Science*, 316, 1036–1039. <http://dx.doi.org/10.1126/science.1136099>

Appendix A

Contrast Tables

Table A1 shows the means that were tested within each sample. The only means that change across the samples are in columns C, F, and I because the strong group salience condition was the one oversampled and from which data were randomly excluded. The means are stable across samples.

Table A2 shows the *F* tests for the Logo \times Salience interaction and the specific contrasts that we report in the main text. The contrasts in each condition were orthogonal. They tested two questions, which we illustrate with the creative logo cells (columns D, E, and F):

Contrast D versus E

Did the weak salience condition (group product with person shown alone) differ from the worked alone condition? Compares column D versus column E (coded $-1, 1$).

This contrast tests the FAE by seeing whether someone working in a team is seen to be as creative as someone working alone when the situation is not salient. We expect this to be non-significant. (as will G versus H)

Contrast Combined DE versus F

Did the strong salience condition (group product with person shown in team) differ from the other two conditions? Compares column D and E (combined) versus F (coded $-1, -1, 2$).

This contrast tests whether people discount individual creativity if the situation is made more salient. We predict that this will be significant. (as will GH versus I)

The value of the *F* test for the interaction is consistent across samples, ranging from 8.24 to 9.79. The contrasts also tell a consistent story across samples. The contrasts pitting the high group salience condition against the other two cells in the creative logo condition were significant at .01, and the median *F*-value was 7.33. All of the contrasts pitting the high group salience condition against the other two cells in the uncreative logo condition were significant at .001, and the median *F* value was 30.64. The contrasts involving no logo were all nonsignificant, as expected.

(Appendices continue)

Table A1
Results of Five Simulated Samples That Adjust for Oversampling in the Strong Salience Condition

	No logo			Creative logo			Uncreative logo		
	Sample A	Sample B	Sample C	Sample D	Sample E	Sample F	Sample G	Sample H	Sample I
	Alone	Weak salience	Strong salience	Alone	Weak salience	Strong salience	Alone	Weak salience	Strong salience
1	59.9	60.6	63.8	73.0	72.4	64.2	40.6	44.8	56.7
2	59.9	60.6	60.8	73.0	72.4	65.2	40.6	44.8	57.8
3	59.9	60.6	62.3	73.0	72.4	64.3	40.6	44.8	56.3
4	59.9	60.6	62.4	73.0	72.4	66.4	40.6	44.8	57.9
5	59.9	60.6	63.0	73.0	72.4	65.6	40.6	44.8	58.0
Average	59.9	60.6	62.5	73.0	72.4	65.1	40.6	44.8	57.3

Table A2
Tests of the Logo × Salience Interaction and Contrasts in the Five Simulated Samples in Table A1

	Logo × Salience interaction	Orthogonal contrasts involving no logo		Orthogonal contrasts involving creative logo		Orthogonal contrast involving uncreative logo	
		Sample A vs. Sample B	Combined Sample AB versus Sample C	Sample D versus Sample E	Combined Sample DE versus Sample F	Sample G versus Sample H	Sample GH versus Sample I
1	9.15***	.05	1.63	.03	9.40**	1.78	29.09***
2	9.79***	.05	.04	.03	7.33**	1.81	35.21***
3	8.54***	.05	.59	.03	9.34**	1.80	25.45***
4	8.96***	.05	.49	.03	5.63**	1.80	34.67***
5	8.24***	.05	1.20	.30	5.97**	1.79	30.64***

** $p < .01$. *** $p < .001$.

Received December 5, 2015
 Revision received August 24, 2017
 Accepted August 25, 2017 ■

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