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Better to brag:

Underestimating the risks of avoiding positive self-disclosures in close relationships

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### Abstract

**Introduction.** Capitalization, or disclosing positive news in close relationships, is interpersonally and intrapersonally beneficial and expected by relational partners. Why do some individuals avoid capitalizing? How do close relational partners react when they later discover that positive news was not directly disclosed to them? **Methods.** We conducted nine correlational and experimental studies using vignettes and recalled events ( $N = 2,177$ ). **Results.** We find that individuals who are concerned about being seen as braggarts tend to avoid capitalizing with their close relationships even when it is likely their partner would ultimately learn of the news. Yet, this concern may be relatively unwarranted and these individuals show a forecasting error: They overestimate how negatively their partner would react to disclosure and

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predict that their partner would react more positively if they discovered the news through external means; they neglect to predict that partners who later learn of the news and realize they were not disclosed toward in fact feel devalued. We discuss how this concern with bragging is linked to decreased extraversion, perspective taking, and empathy. **Conclusion.** Uniquely in close relationships, being concerned about bragging may elicit negative relational outcomes, by hindering the positive self-disclosures that one's partners expect.

Keywords: *capitalization, close relationships, bragging, self-disclosure*

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### **Better to brag:**

#### **Underestimating the risks of avoiding positive self-disclosures in close relationships**

Disclosing information about the self is not only inherently emotionally rewarding, but also critical to building close relationships (Aron et al., 1997; Rimé, 2009; Tamir & Mitchell, 2012). Specifically, the process of sharing personal good news with close others has been termed *capitalization* (Gable et al., 2004). Interpersonally, at least when the recipients of the disclosure are responsive and supportive, this disclosure has relational benefits: capitalization boosts relational quality, satisfaction, intimacy, and trust (Collins & Miller, 1994; Gable et al., 2004; Langston, 1994; Pagani et al., 2020; Rime, 2009). These relational benefits in turn boost intrapersonal outcomes, including increasing feelings of inclusion, life satisfaction, self-esteem, well-being, and positive affect, as well as the perceived value and significance of the positive event itself (Donato et al., 2014; Pagani et al., 2015; Peters et al., 2018). In short, having good things happen in one's life is positive, but telling close others about the news confers additional benefits above and beyond the event itself. Perhaps unsurprisingly then, much research suggests that people generally have an appetite to share recent, good news with close others (see Rime, 2009).

#### **Avoiding Capitalization**

Research readily illustrates the benefits of capitalization for the discloser (Peters et al., 2018). Our present focus, however, is on when people hold back when presented with opportunities to capitalize. Less is known about (a) the motivations that are associated with actors *not* capitalizing and (b) the effects of *not* capitalizing on the would-be target (should this individual later find out an opportunity to capitalize occurred and was not taken). To be clear, we refer to the “actor” as the individual who either does or does not share good news; we refer to the “target” as the individual who either does or does not learn about the good news.

To illustrate, someone (an actor) may have recently received a competitive award for their work, which would presumably and reasonably be considered a salient and proud accomplishment for this individual. However, if asked if anything significant had happened at work by a close friend (target), they may choose to not capitalize upon this accomplishment, replying vaguely that “nothing too significant” has happened at work. Here, we focus on what predicts that this actor would use “nothing too significant” instead of disclosing the good news,

and how the close friend would feel if they later learned that their friend had indeed received an award, but also recalls that the event had been described by their friend as “nothing too significant?” We discuss each of these two questions in turn.

### **Barriers to Capitalization**

Certainly, although people generally disclose to their close relationships, this tendency does not mean individuals indiscriminately capitalize, hoping to reap the benefits of disclosure. First, characteristics of the target predict whether disclosure occurs. Notably, people are less likely to disclose to targets who have been or are perceived to be unresponsive or unsupportive to past capitalization attempts, notably targets who have social anxiety or low self-esteem (Kashdan et al., 2013; MacGregor & Holmes, 2011; Shallcross et al., 2011). Similarly, research has shown that actors are often motivated to conceal discussing situations where they outperform their target in an unrelated domain, when they expect – regardless of whether it is warranted – that the situation will elicit envy, upward social comparisons, retaliation, or otherwise damage the relationship (see Exline & Lobel, 1999 for review).

Second, characteristics of the actor also predict whether disclosure occurs. For example, individuals who are high in attachment avoidance—who tend to fear building intimacy with their close social partners—are less likely to capitalize, driven by a perception that their partner would not be responsive upon disclosure (Gable & Gosnell, 2013). Similarly, people with depression are also less likely to capitalize, despite receiving greater increases in positive affect when they do so (Hershenberg et al., 2014).

However, a recent review of predictors of whether people disclose to their close relationships suggests this picture is far from complete (Peters et al., 2018). In this present work, we explore one individual difference on the actor side that may hinder their capitalization: social presentation concerns, namely, actors’ belief that capitalizing would be seen as bragging.

### **Risk of Bragging vs. Benefits of Capitalization**

In general, bragging is evaluated negatively. Children realize by the age of eight that being boastful or self-enhancing towards others is a social norm violation, and they evaluate their peers who do not conform to this norm negatively (Watling & Banerjee, 2007). In adulthood, rather than flaunt their positive attributes, people often expect others to make self-deprecating comments, for example, about their physical appearance and workplace successes (Britton et al., 2006; Wosinska et al., 1996). People who brag and boast, or who emphasize their own agency in

their successes, are evaluated more negatively than those who do not (Hareli & Weiner, 2000; Schlenker & Leary, 1982). Conversely, not bragging, or downplaying one's achievements or qualities in a tempered, non-boastful way (e.g., by making external attributions) is a socially effective presentation strategy (Cialdini et al., 1998; Davis et al., 2011; Tice et al., 1995). People who avoid bragging are seen as more kind, caring, selfless, as able to prioritize others, and thus trusted (Davis et al., 2011; Exline & Geyer, 2004; Peters et al., 2011). However, we posit that despite the generally negative evaluations elicited from being perceived to be bragging, the risk of being judged negatively as a braggart is attenuated and may be unwarranted in close relationships; in fact, in addition to receiving the psychological rewards of self-disclosure, the unabashed disclosure is appreciated and expected by the close relational target.

Unique norms characterize close relationships. To illustrate, research has found that people want their friends (but not strangers) to ask them for a favor (rather than someone else) and increase their liking for those friends afterwards, even if they see the favor as a burden that they did not in fact want to do, as the ask itself signals trust and closeness (Niiya, 2016; Niiya & Ellsworth, 2012; Niiya et al., 2006). Analogously, people may realize that positive, egocentric news can be perceived as boastful when disclosed, but in the context of close relationships, this disclosure may in fact signal to the friend that they are trusted enough to be privy to this disclosure despite the risks of coming off as boastful. In other words, we posit that the risk of being seen as bragging exists with positive self-disclosure, but this social risk is attenuated and outweighed by the closeness and benefits that capitalizing in close relationships confers for both the actor and the target. In fact, in close relationships, we argue that a risk greater than being seen as bragging exists when it comes to *not* capitalizing, which occurs if targets discover the news later. We now turn our attention to the second question of how targets react to discovering that they were not capitalized toward.

### **Missed Capitalization as a Norm Violation**

Little is known about this latter question of how people react when they discover that their close relationships did not capitalize, or what we term *missed capitalization*. Again, past research has assumed, perhaps unrealistically, that the target of the missed capitalization attempt does not discover the positive news any other way. In our view, this is not how news flows in close relationships; given shared social networks and social media (i.e., "the grapevine"), positive information is likely to be shared by a third party or otherwise be discovered. We

propose that not capitalizing may be considered a norm violation; should targets later discover that an opportunity to capitalize existed (i.e., actor and target were having a relevant conversation), but positive news was not shared with them, they may experience negative interpersonal (e.g., decreases in relational closeness) and intrapersonal outcomes (e.g., increases in negative affect) associated with capitalization.

As relationships increase in closeness, individuals increasingly expect the disclosure and exchange of personal, authentic information, particularly about positive behaviors (Campbell et al., 2010; DePaulo & Kashy, 1998; Laurenceau et al., 1998; Reis & Shaver, 1988). Further, this expectation about the disclosure of positive, personal information holds even when the news may not be personally relevant for the target. People tend to include their close relationships in their self-concept; things that are positive for their close social partners are also positive for the self (Aron et al., 1992). For example, at least when the positive news is in a non-self-relevant domain, individuals often vicariously use their close relationships' successes to bolster their own positive sense of self, known as basking in reflected glory (Tesser, 1988; 2000).

Thus, targets who discover that they were not capitalized toward when an opportunity existed may react negatively, because the norms of self-disclosure and basking in reflected glory lead targets to expect that they are privy to positive information from their close relationships. In turn, individuals who are excluded from information they consider themselves privy to, even when it has no meaningful consequence, can experience negative emotions, and a decreased sense of belonging, liking, and trust of the individual doing the excluding (Jones et al., 2009). For example, in married couples, one partner discovering that the other partner has concealed information results in increased marital conflict and decreased trust, mediated by feeling excluded by one's spouse (Finkenauer et al., 2009).

To be clear, we are not positing that targets do or are necessarily expected to respond positively to receiving positive disclosures; they could very well feel negatively in response to being told about an actor's accomplishment. Certainly, if the target were to never discover the news, then preserving the target's negative feelings and not directly disclosing would be the clearer choice for the actor who may wish to avoid distress or relationship strain (Exline & Lobel, 1999). However, this research does not consider that the target will eventually find out.

We propose that targets react *more* negatively to discovering the news through other means than if they had been told directly, despite the fact that they may be far from pleased at the

news either way. To illustrate, a target may not want to learn about their close friend winning an award, because the target has an extensive history of applying for and not receiving awards. If their close friend capitalized, the disclosure may elicit unwanted social comparison concerns (Tesser, 1988). Yet, we posit that if the target were to learn the news through other means, and recalls that their close friend did not directly disclose this news when a relevant opportunity existed, they may nonetheless make those unwanted social comparisons, but now additionally feel the negative reactions associated with information exclusion.

Further, however, we posit that actors with these bragging concerns neglect the consequences of missed capitalization even when the likelihood that it will occur is made salient. In fact, they believe that their targets will react more positively to discovering the news indirectly, and avoiding capitalizing is the better strategy – *even when they are made aware that their targets will likely discover the news some other way if not directly told*. Here, it may be that actors who refrain from capitalizing do so because they overestimate the extent to which the target will think they are bragging, and underestimate the extent to which their target will react negatively upon discovering missed capitalization has occurred. Thus, they focus on the concern about bragging and neglect the concern about information exclusion, when the focus should be flipped in the context of close relationships. In other words, there is an actor-target mismatch. Actors who avoid capitalizing believe that targets would prefer to learn positive news about them indirectly over direct disclosure, failing to recognize that targets would in fact rather find out through direct disclosure, even if they would prefer to not find out the news altogether.

### **Overview of the Present Research**

In the present work, we have three guiding questions. First, does a concern with bragging hinder direct disclosure with individuals' close relationships? Second, do close relational targets react more negatively when they discover that an actor did not disclose when a relevant opportunity existed? Third, does making clear to the actor that the target is likely to discover the news change how likely bragging-concerned actors are to disclose to targets?

### **Study 1a**

In Study 1a, we aim to establish that there is noteworthy variation in individuals' bragging concerns, and that this concern predicts the likelihood of actors disclosing a hypothetical positive event to a close friend they nominate.

### **Methods**

We recruited 160 participants from Mechanical Turk ( $M_{age} = 37.53$ ,  $SD_{age} = 11.68$ ; 55% female).<sup>1</sup> The response rate was 89%. As this was our first study, we conducted a power analysis, assuming that individuals would be likely to disclose in general (i.e.,  $p = .9$ ), and that for each unit increase in bragging concerns, individuals would decrease in the likelihood of capitalizing (i.e.,  $p = .8$ ). With 80% power, this analysis proposed an initial sample size of 140 (Demidenko, 2006).

Participants were presented with this vignette: *Imagine that you have recently received a promotion at work. Around this time, you go out to dinner with a close friend. During your dinner conversation, your friend asks you “how is work going?”*

To ensure that participants were thinking of a specific close friend in this context, participants were then asked to indicate the first name of the friend they were thinking of in this situation. Then, they were presented with an open-ended prompt and were asked to state what they would say in response to this question from this particular friend. Afterwards, participants were asked to indicate how much they thought disclosing the news of their promotion in this context would be seen as bragging (1 – not at all to 7 – extremely). Finally, participants were asked to predict the extent they thought their friend would feel various positive (i.e., proud, excited, inspired, impressed) and negative (i.e., upset, betrayed, inferior, irritated) emotions if they had told their friend the news of their promotion (1 – not at all to 5 – extremely).<sup>2</sup>

## Results and Discussion

Our primary analysis of interest is whether participants who have higher bragging concerns would be less likely to disclose the news in this vignette. For this analysis, we first used a script to code all of the responses for the presence of the words “promotion” or “promoted” in the response. To illustrate, a response of “It’s going well. I just got a promotion!” was coded as 1; a response of “Work is going well, nothing special” was coded as 0. Subsequent, manual review of the responses did not find any additions or exceptions to the coding (i.e., no response consisted of “I got a new title and raise at work!”). We found that forty percent of participants would not disclose news of their promotion in their response.

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<sup>1</sup> In this and all subsequent studies, we recruited participants in the US to complete a five-minute survey on impression formation for \$.50. No participant was included in more than one study. Data are available at [OSF](#). Studies were not pre-registered.

<sup>2</sup> We selected some positive and negative emotions from the Positive and Negative Affect Schedule (e.g., proud; Watson, Clark, & Tellegen, 1988) that were used in past research on capitalization (Gable et al., 2004), but also created terms that were more appropriate and proximal to evaluating a target’s reaction to the particular vignette being presented (e.g., inferior).



Then, we conducted a logistic regression, where we regressed perceptions of the disclosure as bragging ( $M = 2.86$ ,  $SD = 1.77$ ) on whether people shared the news of their promotion in the open-response. The model indicated that perceptions of bragging negatively predicted whether specific news of the promotion was included in the response ( $b = -.51$ , 95% CI  $[-.72, -.31]$ ,  $z = -4.77$ ,  $p < .001$ , OR = .60), suggesting that at least in this vignette, individuals who believe that sharing would be bragging are less likely to capitalize with their close friends.

Our secondary analysis of interest was to examine whether people who thought that capitalizing on the news of the promotion would be bragging – regardless of whether they disclosed it in their response – would also predict that their friend would have a negative response (i.e., decreased positive emotions and increased negative emotions). We created 4-item composites for both the positive ( $\alpha = .86$ ) and negative ( $\alpha = .91$ ) emotions. Perception of disclosure as bragging was negatively associated with predicting their friend's positive emotions ( $r = -.25$ ,  $p = .001$ ) and positively associated with predicting their friend's negative emotions ( $r = .49$ ,  $p < .001$ ). In sum, we found initial evidence that although capitalizing in close relationships adheres to relational norms, people who have higher concerns that sharing this positive news would be seen as bragging may be less likely to capitalize to their close friend.

### Study 1b

Certainly, this is one hypothetical situation. In Study 1b, our goal was to extend this initial finding by replicating it with situations that actors have experienced. We asked people to recall a past occurrence of experiencing positive news, and to report whether they disclosed it to a close friend. We examined whether their bragging concerns and other evaluations of the event predicted whether they capitalized on this recalled occasion. For example, we would expect that events that were perceived as not personally significant or not significant to the friend to be less likely to be capitalized on. As mentioned, we hypothesized that people with bragging concerns may not be affected by how likely they think their target will discover the news if not directly told when making a decision on whether to disclose. However, we wanted to examine whether bragging concerns predicted the likelihood that individuals capitalized, above and beyond event-related characteristics like how significant it was for themselves and for their friend and how likely they thought their target would discover the news if not directly told.

### Methods

We recruited 215 participants from Prolific (54% female;  $M_{age} = 32.60$ ,  $SD_{age} = 12.41$ ), which provides us with 80% power to detect a small correlation ( $r = .19$ ). The response rate was 95%. We asked participants to describe a “recent and memorable accomplishment that happened to you.” Then, we asked them to nominate a close friend, followed by asking them to indicate whether they told their nominated close friend about the event that they had described (Yes / No / Don’t recall).

Subsequently, we asked participants to complete evaluations about the event they recalled; these were presented one-at-a-time in randomized order. Specifically, we asked participants about our key predictor of interest: How much they thought disclosing the news of their event would be seen as bragging (1 – not at all to 7 – extremely). We also asked questions about how personally significant this event was to them and how significant this event was to their nominated close friend (1 – not at all to 7 – extremely), and how likely they thought it would be that their nominated close friend would learn of their positive news if not directly told by them (1 – not at all likely to 7 – extremely likely).

## Results and Discussion

First, consistent with Study 1a, we found that 31% of participants reported *not* capitalizing on the news with their nominated close friend.<sup>3</sup> Of note, participants generally reported highly personally significant events ( $M = 5.83$ ,  $SD = 1.40$ ) that were perceived to be less personally significant to the nominated friend ( $M = 3.21$ ,  $SD = 1.99$ ). However, the two evaluations were moderately correlated ( $r = .42$ ,  $p < .001$ , 95% CI [.34, .56]). Consistent with self-other overlap, individuals tended to perceive that events that were personally significant for the self were also significant for their close relationships (Aron et al. 1997).

Our primary question of interest was whether bragging concerns predicted whether individuals disclosed their recalled event to their nominated close friend, while controlling for how significant it was to the (a) actor and (b) target (i.e., nominated close friend) and (c) how likely they thought their target would discover the news if not directly told. Of note, bragging concerns were weakly associated with predictions of whether the target would discover the news if not directly told ( $r = -.16$ , 95% CI [-.29, -.02],  $p = .030$ ) and how personally significant the news was ( $r = -.16$ , 95% CI [-.29, -.03],  $p = .020$ ), and not correlated with how significant the news was perceived to be for the target. As in Study 1a, we conducted a logistic regression on

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<sup>3</sup> “Don’t recall” responses were collapsed into “No”

whether people reported sharing their positive news (0 = no; 1 = yes), where we regressed perceptions of the disclosure as bragging ( $M = 2.48$ ,  $SD = 1.78$ ), and the three covariates.

As detailed in Table 1, actors were more likely to disclose to their targets if they thought the news was significant to the target and if they thought the target would be likely to discover the news if not directly told. Notably, when controlling for these predictors, perceptions that disclosure would be bragging negatively predicted the likelihood that actors disclosed to their nominated target. Taken together, we find that actors' beliefs about disclosing being bragging is only weakly tied to whether they think their target would find out the news if not directly told, and not to how significant the event was to their target or themselves. When controlling for these aspects, we find that individuals who have high bragging concerns are still less likely to capitalize with their close friends in real-life, recalled scenarios.

Table 1

*Logistic regression coefficients and odds ratio for capitalizing on a recalled event*

	<i>b</i>	<i>z</i>	OR	OR 95% CI
Bragging concerns	-.29	-2.63**	.75	[.59, .92]
Event significant for self	.01	.10	1.01	[.77, 1.32]
Event significant for friend	.57	3.93***	1.76	[1.35, 2.39]
Friend likely to discover	.30	3.17**	1.35	[1.12, 1.63]

$p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

### Study 1c

Thus far, we have had actors indicate how likely they would be to disclose on two situations and found that bragging concerns predicted a decreased reported (hypothetical vignette) and actual (recalled event) likelihood that they would capitalize on the event with their close friend. Although we found that bragging concerns predicted the likelihood of disclosing above and beyond event-related characteristics like perceived significance to the actor and target and predictions of how likely the target would be to discover the news on their own, we wanted to further ensure that these effects were not specific to the particulars of the vignette or the recalled situation (e.g., the vignette may coincidentally be a self-relevant domain for the target).

We address this concern by exploring whether people who report being likely to refrain from disclosing one event also tend to do so across several different types of positive events.

### Methods

We created 15 examples of positive events. Notably, we included a range of positive events that could occur to individuals, including some that were accomplishments (e.g., performed well in a competition) and some that were serendipitously positive (e.g., won a contest). We recruited 307 participants on Mechanical Turk in the US. We excluded participants who failed an attention check item, leaving 284 participants for the analysis ( $M_{age} = 38.80$ ;  $SD_{age} = 12.01$ ; 60% female). The response rate was 92%. All participants were presented with the 15 items in randomized order, and with this stem: “I would share the news with my close friends, if I had recently...” Participants indicated how likely they were to disclose each of the positive events on a five-point scale (definitely not, probably not, might or might not, probably yes, definitely yes).

### Results

Our primary goal was to examine whether individuals reported a generalized tendency to refrain from disclosing across all fifteen events. To do so, we conducted an exploratory factor analysis.<sup>4</sup> People generally reported being likely to disclose positive events ( $M = 3.73$ ,  $SD = .70$ ), however, the distribution of mean scores also adhered to a relatively normal distribution (Skew =  $-.40$ , Kurtosis =  $.35$ ).

The scree plot suggested a one-factor solution was most appropriate, with high sums of squares loadings ( $> 6.76$ ), appropriate model fit (RMSEA =  $.098$ ), and all items adequately loading onto this factor ( $> .51$ ; see Table 2). Beyond one particular event, individuals varied on a generalized tendency to being likely to disclose positive news to their close friends.

Table 2

*Factor loadings for items representing a generalized tendency to capitalize (15 items)*

Item	Factor loading
Won a contest.	.715

<sup>4</sup> A composite of the 15 items showed high internal consistency ( $\alpha = .92$ ), but no item showed high multicollinearity (i.e.,  $r > .8$ ).

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Bought a new car.	.686
Made improvements to my home.	.635
Mastered a new skill.	.683
Made vacation plans.	.529
Started a romantic relationship.	.656
Received an interesting gift.	.725
Performed well in a competition.	.756
Been recognized with an award.	.708
Received an offer for a great job or school.	.655
Performed well on an exam.	.718
Met someone famous.	.635
Been featured in the news or media.	.752
Received a notable compliment from someone.	.652
Solved a problem that I had been struggling with.	.688

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### **Brief Discussion**

In Studies 1abc, we find that while capitalization is generally an advantageous and common behavior in close relationships, certain individuals may be reluctant to do so, because they have concerns that the target would find them to be bragging. We find that this rate of avoiding capitalization – approximately thirty to forty percent of participants – was consistent whether we presented individuals with a vignette or asked them to recall their own event, and that bragging concerns predicted whether individuals would capitalize, above and beyond characteristics of how much it mattered to the actor, target, or the likelihood of the target discovering the news, suggesting that bragging concerns may be an important predictor of capitalization to further examine.

### **Study 2a**

We now turn our attention to the target. Again, research has not examined how targets respond to incidences of “missed capitalization,” where targets discover a relevant opportunity arose for an actor (i.e., a close relationship) to disclose positive news, but the actor did not capitalize. How do they react if they were to later discover the news? As well, would targets

react more positively to discovering positive news about their close relationships through direct disclosure (i.e., capitalization) or through an external source?

### Methods

We recruited 160 participants from Mechanical Turk ( $M_{age} = 35.74$ ,  $SD_{age} = 10.68$ ; 55% female), which with 80% power can detect a small effect ( $d = .45$ ). The response rate was 94%. Participants were randomly assigned to one of two vignette conditions. In the missed-capitalization condition ( $n = 82$ ), participants were presented with this vignette: *Imagine that you are out to dinner with your close friend. During your dinner conversation, you ask how their work has been going. They reply that **work has been going all right**. The next day, you see a post on their Facebook timeline from their coworker congratulating them on their latest promotion.* In the capitalization condition ( $n = 78$ ), participants were presented with this vignette: *Imagine that you are out to dinner with your close friend. During your dinner conversation, you ask how their work has been going. They reply that they **just received a promotion at work**. The next day, you see a post on their Facebook timeline from their coworker congratulating them on their latest promotion.*

After reading the vignette, all participants were asked to indicate the first name of the friend they were thinking of in this context. After nominating a friend, they were asked to imagine themselves in this situation, and to rate how much they would feel various positive and negative emotions (as in Study 1a). They were then asked to evaluate how much they thought (1 – not at all to 7 – extremely) their friend felt emotionally close to them (How emotionally close do you think [nominated friend] feels towards you?), trusted them (How much do you think [nominated friend] trusts you?) and valued them (How much do you think [nominated friend] values you?), and how emotionally close they felt to their friend (How emotionally close do you feel to [nominated friend]?), trusted their friend (How much do you trust [nominated friend]?), and valued their friend (How much do you value [nominated friend]?).

### Results

Our primary analysis was to examine whether individuals reported they would feel less positive and more negative if they found out about the positive behavior after a close friend did not capitalize when a relevant opportunity existed (i.e., the discussion of work came up and the positive news had recently occurred). As in Study 1, we created 4-item composites of the positive ( $\alpha = .85$ ) and negative ( $\alpha = .85$ ) emotions used. A Welch t-test showed that people who

imagined the missed-capitalization scenario had lower positive emotions ( $M = 2.93$ ) than people in the capitalization scenario ( $M = 3.33$ ),  $t(151.5) = 2.54$ , 95% CI [2.45, 3.25],  $p = .012$ ,  $d = .40$ , and higher negative emotions ( $M = 1.89$  vs.  $M = 1.40$ ),  $t(148.7) = -3.89$ , 95% CI [-3.16, -4.13],  $p < .001$ ,  $d = -.62$ .

Our secondary analysis was also to examine whether individuals who were in the missed capitalization scenario would report feeling devalued by their friend and if they would devalue the relationship with their friend as well. We created a composite of the evaluations of the nominated relationship based on the three items that assessed whether individuals felt their friend valued, trusted, and felt emotionally close to them ( $\alpha = .94$ ) and a composite based on the three items that assessed whether individuals valued, trusted, and felt emotionally close to their friend ( $\alpha = .89$ ). Of note, the two evaluations were highly correlated ( $r = .87$ , 95% CI [.82, .90],  $p < .001$ ). A Welch t-test showed that people who were in the missed-capitalization condition ( $M = 4.24$ ) reported they would feel less valued as a friend than people in the capitalization condition ( $M = 5.51$ ),  $t(144.05) = 5.37$ , 95% CI [4.57, 7.11],  $p < .001$ ,  $d = .85$ , and they would devalue their friendship as well ( $M = 5.53$  vs.  $M = 4.80$ ),  $t(153.82) = 3.52$ , 95% CI [3.20, 4.66],  $p < .001$ ,  $d = .56$ .<sup>5</sup>

We take the results of Study 2a to suggest that not being the recipient of positive self-disclosure may lead close friends to feel a host of negative emotions and to feel de-valued in the friendship if they later find out about the news; this feeling de-valued may be accompanied by one derogating how much trust, value, and emotional closeness one feels in the relationship as well. We propose that this pattern of feeling negatively on the part of the friend (i.e., target) exists because missed capitalization violates the relational norms of close relationships. However, an alternative explanation to the results, where we found that individuals reported lower positive emotions and higher negative emotions in response to discovering missed capitalization, may simply be that people prefer to learn information about others (i.e., be “in the know”) rather than not.

### Study 2b

In Study 2b, we set out to replicate the findings from Study 2a and examine whether the negative effects of discovering missed capitalization were restricted to close others, in which not disclosing positive information would be a norm violation, or if these effects would also result

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<sup>5</sup> All group differences remained significant with a Bonferroni correction for four comparisons ( $p = .013$ ).

from missed capitalization from acquaintances, which would suggest nothing about norm violations, but that people simply feel more positive when other people disclose positive information to them.

### Methods

We recruited 271 participants from Mechanical Turk ( $M_{age} = 36.56$ ,  $SD_{age} = 10.56$ ; 53% female). The response rate was 84%. Participants were randomly assigned to read a vignette (the same as in Study 2a) that involved missed-capitalization or capitalization; they were also randomly assigned to read a vignette that involved either their close friend or a new acquaintance capitalizing or not capitalizing the news of their promotion at dinner (i.e., a 2x2 between subjects design). As in Study 2a, all participants later found out about the job promotion on Facebook. Thus, participants were randomly assigned to one of four conditions. After reading the vignette, all participants were asked to indicate the first name of the person they were thinking of in this situation. Then, all participants completed the same positive and negative emotion ratings as in the previous studies.

### Results

Our primary analysis of interest was whether people who discover missed capitalization occurred (i.e., they discover the news later) would report feeling less positive and more negative – but only if the actor in the scenario was a close friend. First, as in previous studies, we created composites of positive ( $\alpha = .91$ ) and negative ( $\alpha = .84$ ) emotions. Then, we conducted a 2 (non-disclosure or disclosure) x 2 (target involved) MANOVA on our two emotion composites.

The results showed a significant multivariate interaction,  $F(2, 264) = 5.93$ , Wilk's Lambda = .96,  $p = .003$ . As such, we followed up with univariate ANOVAs, separately for negative emotions and positive emotions. For negative emotions, we found our predicted interaction ( $F(1, 267) = 14.42$ ,  $p < .001$ ). Planned contrasts indicated that there was a significant difference in levels of reported negative emotions between the capitalization and non-capitalization conditions, but only when the imagined actor was a close friend ( $Estimate = -.50$ ,  $t(267) = -4.35$ ,  $p < .001$ ,  $d = -.78$ ). As illustrated in Figure 1, when the imagined actor is a new acquaintance, there is no significant difference in reported negative emotions felt when it is discovered an opportunity for capitalization occurred but was missed. In contrast, when the imagined actor is a close friend, discovering missed capitalization occurred results in higher levels of negative emotions compared to if capitalization occurred. Further, examining only the



capitalization conditions (i.e., acquaintance vs. close friend) shows that targets respond significantly more negatively when an acquaintance capitalizes than when a close friend does, consistent with the proposition that positive self-disclosures may pose a risk of being evaluated negatively as bragging or boasting – except when close relationships are concerned.

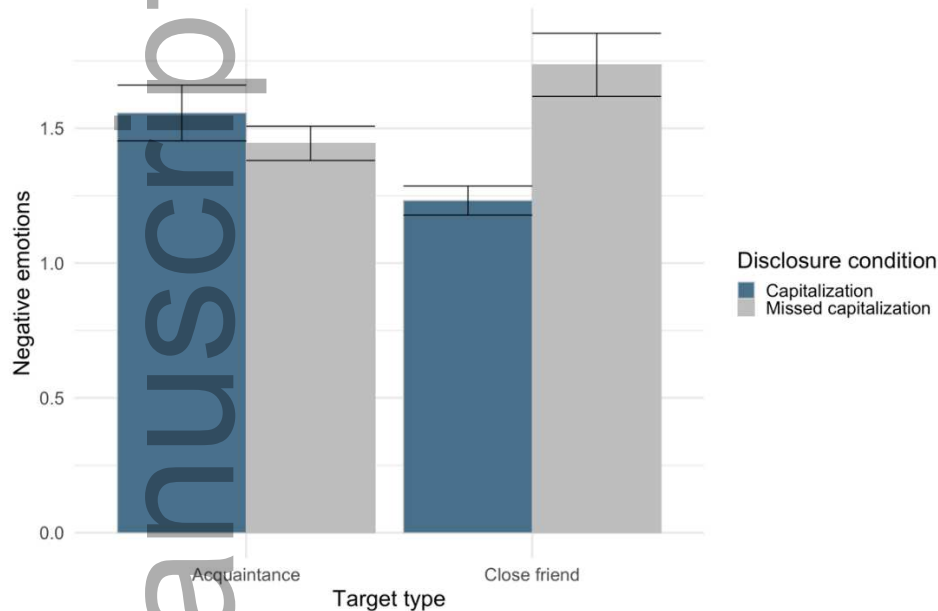


Figure 1. The interaction between target person and disclosure condition on negative emotions. Error bars show standard error of the mean.

For positive emotions, the model showed significant main effects of capitalization condition ( $F(1, 265) = 16.75, p < .001, d = .50$ ) and target person ( $F(1, 265) = 13.42, p < .001, d = .45$ ), but no significant interaction. In general, people who imagined being capitalized to reported higher levels of positive emotions ( $M = 3.16$ ) than people who were not capitalized to ( $M = 2.62$ ). Similarly, people who imagined that the actor was a close friend reported higher positive emotions at finding out about the news ( $M = 3.20$ ) than people for whom the imagined actor was a new acquaintance ( $M = 2.59$ ).

### Brief Discussion

Thus far, we show that a sizable minority avoid capitalizing with their close relationships out of bragging concerns (Studies 1abc). However, as we show in Studies 2ab, avoiding capitalizing may have affective and relational consequences if the target later discovers the news and that a relevant opportunity to capitalize was missed by the actor. This negative reaction upon

learning the news was only evident when the actor was a close friend, and not an acquaintance. The present results suggest that people may not care about missed capitalization when it happens with individuals with whom they are not close and suggest that the negative reactions are because discovering missed capitalization is akin to discovering violations of the relatively unique relational norms that govern information sharing and disclosure. Alternatively, it may be that individuals care much more about the effects of information exclusion or being “in the know” when it concerns their close relationships. Either way, these findings are consistent with our reasoning that positive self-disclosures signal trust and govern close relationships, and targets expect to receive disclosures about their close friends’ positive behaviors and accomplishments. When individuals do not engage in positive self-disclosures when a relevant opportunity exists, negative relational outcomes may occur. With these consequences in mind, we ask: Are actors with bragging concerns cognizant of these negative consequences of missed capitalization?

### Study 3a

In Study 3a, we aimed to assess whether actors with bragging concerns change how likely they are to capitalize when they are made aware that their target will likely eventually discover the news. That is, if it became salient to actors with high bragging concerns that their target relationship will discover the news later, they may be more likely to disclose the news to their target when presented with an opportunity, suggesting that they realize that the target will react negatively to discovering missed capitalization. Alternatively, they may think it does not matter to targets how they find out the news, in which case, increasing the likelihood that targets eventually learn of the news would not increase their likelihood of capitalizing. Of note, in Study 1b, we found evidence to suggest that it may be the latter case, as individuals’ bragging concerns predicted whether actors disclosed above and beyond whether they thought the target would be likely to find out the news on their own.

### Method

We recruited 202 participants from Mechanical Turk ( $M_{age} = 36.96$ ,  $SD_{age} = 11.39$ , 51% female), which provides us with 80% power to detect a small effect ( $d = .40$ ). The response rate was 94%. Participants were randomly assigned to read one of two vignettes. In this case, we used a scenario that did not involve a coworker revealing the news on Facebook, in case it made

individuals think that the actor had purposely told the coworker about the news, but not the target.

In the *public news* condition, participants read this scenario: *Imagine that you took part in a competition over the weekend, and you came in first place. Because you won the competition, your photo was taken by the local news, who said they would write an article about it early next week. The next week, you go out to dinner with a close friend.* In the *private news* condition, participants read this scenario: *Imagine that you took part in a competition over the weekend, and you came in first place. Because you won the competition, your photo was taken by the organizers, who said they would send it to you early next week. The next week, you go out to dinner with a close friend.*

As in prior studies, participants nominated a close friend. Then, they were asked to imagine that their friend asked them how their weekend went, and to indicate what they would say in response. Afterwards, regardless of their response, participants were asked to indicate how much they thought telling their friend that they had won the competition would be bragging or boasting and how likely they thought their friend would discover the news of their winning the competition if they did not tell them (1 – not at all likely to 7 – extremely likely).

## Results

We excluded participants ( $n = 8$ ) whose open-ended response was non-sensical or indicated that they would respond with “nothing.” Similar to Study 1a, we coded the responses for whether they disclosed the news of winning the competition. First, a script coded all the open-ended responses for whether individuals included the words “win(ning)”, “won” or “first” in their response. Then, we manually reviewed the responses and one missed case of disclosure (i.e., “I would talk about my accomplishments”), and six responses which vaguely indicated that they would tell [the target] about the competition or contest. We assumed this telling would include the disclosure and coded them as such. All other responses were coded as having not disclosed.

As a manipulation check, a Welch t-test showed that, overall, participants in the public news condition ( $M = 4.46$ ) reported a higher likelihood that their friend would discover the news if not directly told than participants in the private news condition ( $M = 3.95$ ),  $t(192.51) = -2.21$ ,  $p = .030$ . Perceptions of whether disclosure would be bragging did not differ by condition.

Similar to Study 1, we found that in this scenario, 37% of participants reported a response that would not include news of their winning the competition. Our primary analysis of interest, however, was whether knowledge that the news would otherwise be publicized shortly (i.e., by the news article) would influence whether actors reported they would disclose to their friend at dinner. We conducted a binary logistic regression where we regressed perceptions of bragging, scenario condition, and individuals' prediction that their friend would discover the news if not directly told. Individuals' perceptions that disclosure would be bragging was the only significant predictor in this model ( $b = -.49$ , 95% CI  $[-.69, -.30]$ ,  $z = -4.96$ ,  $p < .001$ ,  $OR = .61$ ). Taken together, and consistent with the real-life reported event recalled in Study 1b, we do not find evidence that when individuals' bragging concerns are taken into account, that manipulating the knowledge that targets will later discover the news changes whether actors are likely to capitalize. Individuals' bragging concerns were the only significant predictor of whether individuals disclosed positive news to their close friends.

### Study 3b

Thus, it is not the case that non-capitalizing actors simply fail to consider that targets may discover the news. However, this raises the question of whether actors who do not capitalize fail to consider the *consequences* of targets discovering missed capitalization. For people high in bragging concerns, they may think that their target would react no differently or not care how they found out the news; in fact, they may very well believe that their friend would react more positively if they were to find out about their accomplishment through an external source (i.e., on Facebook).

In Study 3b, we test the hypothesis that actors with high bragging concerns in fact think their targets, if they were to learn of the news either way, would *react more positively* to discovering the news through means other than disclosure. This would suggest that they do not accurately predict the target's reactions, which as we showed in Studies 2ab, are more positive when the news is discovered through direct disclosure.

### Methods

We recruited 301 participants from Mechanical Turk ( $Mage = 37.15$ ,  $SDage = 12.23$ , 55% female), which provides us with 80% power to detect a small effect ( $r = .16$ ). The response rate was 96%. As in Study 1a, all participants were presented with the vignette where they had recently received a promotion at work and were out to dinner with their close friend. After

nominating a close friend, participants were asked to indicate how much they thought telling their friend about their recent promotion would be bragging or boasting (1 – not at all to 7 – extremely) and how likely it was that they would tell their friend about the news of their promotion (1 – not at all likely to 7 – extremely likely).

Afterwards, all participants were presented with two situations in counterbalanced order. In the first situation, participants were asked to imagine that they did tell their friend about their recent promotion at dinner. In the second situation, participants were asked to imagine that they did not tell their friend about their recent promotion at dinner; however, the next day, their friend saw a post from the participant's coworker congratulating them on their recent promotion. For each situation, participants were asked to predict the extent they thought their friend would feel each of the positive and negative emotions (as in Study 1a) when they found out the news of their promotion.

## Results

First, we created four composite predicted emotions scores. We created positive ( $\alpha = .86$ ) and negative ( $\alpha = .87$ ) composites for the predicted emotions if their friend found out at dinner, and positive ( $\alpha = .89$ ) and negative ( $\alpha = .86$ ) composites for the predicted emotions if their friend found out on Facebook.

Our primary analysis was to examine whether participants who had higher bragging concerns would predict that their friend would feel more positively and less negatively if they learned of their promotion on Facebook than if they learned of it at dinner. For this analysis, we created two difference scores: one for predicted positive emotions and one for predicted negative emotions. To create each difference score, we subtracted the emotions predicted from finding out at Facebook from finding out at dinner, such that higher values on the positive emotions difference score indicate that individuals predicted their friend would react *more* positively if they found out about the promotion at dinner than on Facebook; likewise, higher values on the negative emotions difference score indicate that individuals predicted their friend would react *more* negatively if they found out about the promotion at dinner than on Facebook. We regressed the mean-centered perception that disclosing would be bragging onto each of the two difference scores for positive and negative emotions.

For positive emotions, the model was significant,  $F(1, 299) = 10.00$ , Adjusted  $R^2 = .03$ ,  $p = .002$ . This difference in predicted positive emotions was predicted by perceptions that

disclosing the news would be bragging ( $b = -.10$ , 95% CI  $[-.17, -.04]$ ,  $t = -3.16$ ,  $p = .002$ ). Specifically, participants who thought that disclosing the news of their promotion would be bragging were significantly less likely to think that their friend would feel more positively finding out the news at dinner than on Facebook.

For negative emotions, the same pattern emerged,  $F(1, 299) = 13.27$ , Adjusted  $R^2 = .04$ ,  $p < .001$ ). This difference in negative emotions was predicted by whether participants thought disclosing the news would be bragging ( $b = .11$ , 95% CI  $[-.05, .18]$ ,  $t = 3.64$ ,  $p < .001$ ). Specifically, participants who perceived the disclosure as bragging were more likely to think that their friend would feel *more* negatively if they found out about their promotion at dinner rather than on Facebook.<sup>6</sup> These results suggest that actors with higher bragging concerns are more likely to refrain from disclosure, in part because they think that their target would react more positively if they were to find out through a third party.

### Study 3c

We have identified one reason why actors with high bragging concerns are relatively unaffected by the information that their target will likely discover the news through other means if not directly told, because they tend to think that their targets would *react more* positively if they were to find out through those other means. In Study 3c, we identify one more reason.

Actors with high bragging concerns may also tend to underestimate how positively and overestimate how negatively their nominated target would react if they were to learn the news through direct disclosure, and overestimate how much their target would think disclosure of their news would be bragging. If they (mis)predict that their target would think they are bragging and react much more negatively than the target actually reports, this may contribute to why they are reluctant to directly disclose when a relevant opportunity arises. To test this possibility, we conducted a dyadic study where individuals completed our measures as the actor, and then nominated a friend to complete the measures from the target perspective. With this, we can directly assess whether there is a misperception between actors with high bragging concerns and their nominated targets.

### Methods

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<sup>6</sup> We present a difference score analysis for parsimonious illustration. Using a linear mixed-effects model to analyze the differences in the two predictions results in the same pattern of results.

We recruited 235 participants from Prodege in the US. These participants (i.e., actors) were asked to nominate two close friends (i.e., targets). The friends were then invited via email to complete a target survey. We considered a pair complete when one friend responded; if both friends responded, we only retained data from the first friend to respond. To minimize fraudulent responding, targets were not compensated for their responses (Vazire, 2006). All actors and targets were notified that their responses would not be shared with each other. Targets received up to two follow-up emails to encourage responding within one week of the actor nominating them. We concluded data collection with 52 friend pairs (22% response rate;  $Mage = 37.84$ ;  $SDage = 17.91$ ; 66% female).

Actors were presented with the job promotion vignette as used in our prior studies. For each of their two friends (separately and in counterbalanced order), they indicated how likely they would be to disclose the news of their promotion at dinner and how much they thought disclosure would come off as bragging to their friend (1 – Not at all to 7 – Extremely). Then, as in prior studies, they predicted how positively and negatively their friend would react if they discovered the news at dinner.

Targets were presented with the same job promotion vignette; they were asked to imagine that the friend who nominated them had disclosed news of their job promotion at dinner. They were asked to indicate how much they thought that disclosure was bragging, and to indicate how positively and negatively they would react if they discovered the news at dinner.

## Results

Given our small sample size, we used Bayesian analyses; of note, frequentist correlations do not change the pattern of results. We created composite scores for positive emotions ( $\alpha = .81$  for actors,  $\alpha = .85$  for targets) and negative emotions ( $\alpha = .92$  for actors,  $\alpha = .84$  for targets). Then, we created three difference scores by subtracting the target's positive emotions, negative emotions, and perceptions of bragging from the actor's respective scores. A larger positive difference score indicates that the actor predicted the target would respond more positively, more negatively and more so think disclosure was bragging than the target actually indicated. Our reasoning would predict that actors' perceptions that disclosure is bragging is negatively correlated with the positive emotions difference score (higher positive bragging ratings is associated with greater negative difference score) and positively correlated with the negative

emotions difference score and the bragging difference score (higher positive bragging ratings is associated with greater positive difference score).

Our goal was to examine whether people who had higher bragging concerns had a greater misprediction of how their friends would react to the disclosure. Of note, actors were somewhat likely to share the good news with their friend ( $M = 4.41$ , 95% CI: [4.14, 4.69]) and generally did not see disclosure of this scenario would be bragging ( $M = 1.65$ ,  $SD = 1.00$ ). Consistent with our reasoning that appearing like one is bragging is of minimal risk in close relationships, we found that targets generally did not generally perceive disclosure on this situation to be bragging either ( $M = 1.75$ ,  $SD = 1.22$ ). We correlated actors' perceptions of bragging to their friend with the difference scores. Actors who believed that disclosure would be bragging also predicted that their friend would react *more* negatively than their friend actually reported ( $r = .46$ ,  $p < .001$ ,  $BF_{10} = 93.62$ ) and that their friend would think it was bragging more so than their friend actually reported ( $r = .60$ ,  $p < .001$ ,  $BF_{10} = 19474.44$ ).<sup>7</sup> We found “anecdotal evidence” that actors who believed that disclosure was bragging also predicted that their friend would react *less* positively than their friend actually reported ( $r = -.27$ ,  $p = .06$ ,  $BF_{10} = 1.90$ ).

### **Brief Discussion**

Thus far, we have identified that a notable proportion of actors avoid capitalizing with their nominated close relationships (Studies 1abc), despite the negative relational consequences when targets discover missed capitalization has occurred (Studies 2ab). In Studies 3abc, we find that individuals with high bragging concerns tend to mis-predict the consequences of avoiding direct disclosure and their target discovering missed capitalization.

Notably, in Study 3a, we rule out the possibility that individuals with high bragging concerns just tend to think that their targets will be unlikely to ever discover the news, and thus the social calculus would be weighted toward not taking the risk of disclosing and appearing like one is bragging. Even when we manipulate the salience that their target may discover the news later through other means – and thus realize missed capitalization has occurred – individuals with high bragging concerns are not more likely to disclose when an opportunity exists. In Study 3b, we find that actors with bragging concerns may neglect to consider the negative consequences that arise when a target discovers missed capitalization. Individuals with high bragging concerns

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<sup>7</sup> Inverse Bayes factors  $> 3$  indicate at least substantial evidence for the alternative hypothesis. Bayes factors  $> 150$  indicate decisive evidence for the alternative hypothesis (see Jarosz & Wiley, 2014).



tend to think that their target would react *more positively* if they discovered the news through means other than disclosure. However, as we show in Studies 2a and 2b, this judgment may be mismatched; targets report that they would react with less positive emotions and more negative emotions, and feel devalued in the friendship if they were to find out about the news on Facebook rather than at dinner. To illustrate, actors with high bragging concerns may think that their friend would react with jealousy if they were to tell them about their promotion at dinner. However, they may fail to recognize that said friend would still be jealous, but now also irritated that they found out the news of the promotion later (via a different acquaintance of their friend) than if they were told the news first-hand.

In Study 3c, we find that individuals with high bragging concerns were not just more likely to have friends that are more likely to judge them for bragging and react negatively to direct disclosure. Yet, we also find that these actors with high bragging concerns tend to have a greater misprediction of how their targets would react; acknowledging that the reaction from the target is not necessarily overwhelmingly positive, actors with high bragging concerns nevertheless predict that their nominated target would react more negatively and think disclosure is bragging more than their nominated targets in fact actually report. This greater forecasting error among actors with high bragging concerns may be one contributing reason why they avoid relevant opportunities to capitalize.

In sum, we find that certain individuals are less likely to capitalize with their close relationships, possibly due to concerns that doing so would be bragging. These individuals do not avoid capitalizing because they think the event is insignificant to themselves or to the target, or because they think that the target will not find out any other way; it is possible that they overestimate how negatively their target would respond to direct disclosure, overestimate their target's perception of them as bragging, and hold a misguided belief that their target would react more positively if they discovered the news through an external source.

#### Study 4

Who is this non-capitalizer who is preoccupied with bragging? In Study 4, we examined how our measures may correlate with other theoretically relevant individual difference measures. Here, we predict that non-capitalizers may be lower in *extraversion* (Palmer et al., 2016). Past research has suggested that individuals who are more extraverted (i.e., outgoing and sociable) are more comfortable with sharing memories about the self (McLean & Pasupathi, 2006). As well,

non-capitalizers may be higher in *self-monitoring*, or the tendency to adjust one's behavior (i.e., not disclosing) according to situational demands and perceptions of others' judgments (i.e., being seen as bragging) (Snyder, 1974). We also propose that non-capitalizers may have lower *perspective taking* and *empathy*. As we have detailed, people who refrain from capitalizing out of bragging concerns have a misperception: they tend to think that their targets would react more positively if they found out the news through means other than disclosure; however, this is a misperception, and targets in fact react more positively upon finding out through direct disclosure. Based on this reasoning, we hypothesized that non-capitalizers may be less likely to realize this fact because they tend to engage in less accurate perspective taking or are less empathetic.

### Methods

We recruited 306 participants from Mechanical Turk in the US, which with 80% power can detect small correlations ( $r = .16$ ). The response rate was 96%. After excluding participants who failed an instructional manipulation check, we had a final sample of 290 participants ( $M_{age} = 39.39$ ,  $SD_{age} = 12.69$ ; 58% female).

Participants were presented with the same job promotion vignette as in Study 1a, and were asked to indicate how much they thought telling their friend about their recent promotion would be bragging or boasting (1 – not at all to 7 – extremely) and how likely it was that they would tell their friend about the news of their promotion (1 – not at all likely to 7 – extremely likely). We used this measure to index the specific tendency to capitalize on a vignette. Then, as in Study 1b, participants completed the 15-item series of positive events and how likely they would be to disclose on each of the events (1 – not at all likely to 5 – very likely). We used this measure to index the generalized tendency to capitalize, where higher scores indicate a higher generalized tendency to disclose positive events.

Subsequently, participants completed a measure of self-monitoring (Snyder, 1974). This 25-item measure ( $\alpha = .72$ ) assesses the tendency to change one's behavior to adapt to situational demands.<sup>8</sup> Participants were asked to indicate whether they thought items like “Even if I am not enjoying myself, I often pretend to be having a good time” were *true* or *false* of them. Certain items are negatively worded and reversed for scoring. The sum of all *true* answers was taken as a composite of self-monitoring, such that higher scores reflect higher levels of self-monitoring.

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<sup>8</sup> An error in entering the scale items resulted in the omission of item #3.

Participants also completed the six-item ( $\alpha = .81$ ) extraversion measure (e.g., “I am someone who tends to be quiet.”) from the Big Five Inventory II (Soto & John, 2017). This measure asks participants to indicate their agreement on five-point scales (disagree strongly, disagree a little; neutral/no opinion; agree a little; agree strongly). Certain items are reverse-scored, such that higher mean scores reflect higher levels of extraversion.

Finally, participants completed the (a) empathic concern and (b) perspective taking subscales of the Interpersonal Reactivity Index (Pulos et al., 2004) to assess empathy and perspective taking, respectively. On the seven-item ( $\alpha = .90$ ) empathic concern subscale, participants are asked to indicate their agreement to statements like “Other people’s misfortunes do not usually disturb me a great deal.” On the seven-item ( $\alpha = .84$ ) perspective taking subscale, participants are asked to indicate their agreement to statements like “Before criticizing somebody, I try to imagine how I would feel if I were in their place.” Participants are asked to indicate how well each item describes them (1 – does not describe me well to 5 – describes me very well). Certain items are reverse-scored, such that higher mean scores on these subscales reflect higher empathy and perspective taking, respectively.

## Results

Our primary analysis of interest was to assess how our measures correlated with each other (Table 3). But first, consistent with Study 1b, people who thought capitalizing on their job promotion would be bragging were less likely to disclose. We found that their reported, general tendency to disclose (across 15 events) was negatively associated with perceptions of bragging and positively associated with the tendency to disclose on the vignette. As expected, the generalized tendency to disclose (15-items) was also positively associated with extraversion, empathy, and perspective taking. However, contrary to our hypothesis, self-monitoring was not significantly related to either measure of the tendency to capitalize.

Table 3

*Correlations among bragging concern, tendency to capitalize, and related individual differences*

	1	2	3	4	5	6	7
1. Tendency to disclose (15-items)	1.00						

2. Bragging concern (vignette)	-.14*	1.00					
3. Tendency to disclose (vignette)	.47***	-.40***	1.00				
4. Perspective taking	.27***	-.17**	.15**	1.00			
5. Empathic concern	.25***	-.17**	.14*	.59***	1.00		
6. Extraversion	.26***	-.04	.02	.30***	.19***	1.00	
7. Self-monitoring	.10	.12*	-.05	-.14*	-.22***	.32***	1.00

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Our secondary analysis of interest was to assess whether bragging concerns, above and beyond the other related individual difference measures (i.e., extraversion, empathic concern, self-monitoring, perspective taking, and generalized tendency to capitalize) significantly predicted whether individuals would report being likely to disclose on the job promotion vignette. We constructed a multiple regression model where we simultaneously entered and regressed them onto the likelihood that individuals reported they would share the news of the job promotion with their close friend on the vignette. As detailed in Table 4, when controlling for these other related individual difference measures, perceptions of bragging remained a significant negative predictor of the likelihood of actors disclosing the positive news.

Table 4

*Regression coefficients for personality constructs on the likelihood of disclosure*

	<i>b</i>	<i>t</i>	95% CI
Bragging concern (vignette)	-.18	-6.79***	[-.24, -.13]
Tendency to disclose (15-items)	.57	-8.76***	[.45, .70]
Perspective taking	.01	.11	[-.14, .16]
Empathic concern	-.01	-.25	[-.14, .11]
Extraversion	-.10	-1.81	[-.21, -.01]

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Self-monitoring	-.005	-.39	[-.03, .02]
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$F(6, 283) = 24.79, p < .001, \text{Adjusted } R^2 = .33$

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

### Brief Discussion

Thus far, we have established that certain individuals refrain from capitalizing (Study 1abc), despite its negative relational consequences (Studies 2ab), and despite knowing that their targets will later find out (Study 3a), possibly due to a forecasting error in predicting and comparing how their targets would react when discovering news through direct disclosure versus through external means (Studies 3bc). In Study 4, we paint a more complete picture of who this individual who holds these views is.

In particular, we find that the tendency to see capitalization as bragging is associated with decreased extraversion, perspective taking and empathy. Of particular interest, it is possible that decreased perspective taking or empathic skill are associated with why individuals with high bragging concern may fail to consider how their target may react to discovering missed capitalization or why they predict that their target may in fact react more positively to discovering the news through means other than capitalization. Again, in Study 3c, we found that individuals with higher bragging concerns have a greater misprediction of how positively and negatively their nominated target would react, when we compare their predictions with the target's actual responses. It is possible that these individuals may adhere more closely to "rules" that bragging is evaluated negatively rather than being sensitive to the relatively more dynamic and unique norms that govern their close relationships. Importantly, when we control for these other individual differences on the actor side, we find that bragging concerns remain a significant predictor of whether actors disclosed, suggesting that measuring bragging concerns provides added value for understanding the predictors of capitalization, above and beyond measuring theoretically relevant personality traits.

### General Discussion

In the present work, we identify one notable barrier to capitalizing, that being a belief that one would be judged as bragging or boasting by one's close relationship (i.e., target). In brief, we consistently find that a sizable minority of individuals report they would avoid capitalizing with a nominated close relationship. Above and beyond various event and target-related

characteristics, bragging concerns around capitalizing predict whether this positive self-disclosure occurs. This concern, along with the likelihood of capitalizing, is tied to lower extraversion, empathy, and perspective-taking, and a tendency to predict that their target would react more positively if they found out through means other than disclosure. Importantly, this is a misprediction that individuals with bragging concerns may fail to appreciate: Targets react more favorably when they discover the news through direct disclosure, and targets who discover missed capitalization react by evaluating the relationship negatively.<sup>9</sup>

Capitalization confers several wellbeing benefits for the discloser and relational benefits for the recipient. As such, should individuals opt to *not* capitalize when a relevant opportunity exists, we assume that a social calculus has occurred where they have determined that the benefits of capitalizing do not outweigh other risks or outcomes associated with disclosing to their target. Our current work suggests that this social calculus, at least in individuals with elevated bragging concerns, may be miscalibrated, and as a result, these individuals may not be reaping the rewards of capitalizing. For example, we show in Study 3c that that the risk of being seen as bragging by close relationship targets is likely minimal.

Yet, not capitalizing, should the target later discover the news, is not without consequence. Thus, we build on capitalization research by extending this work into experiences of “missed capitalization.” Notably, we find that targets who imagine they were not disclosed to feel significantly more affectively negatively and devalued as a relational partner. Again, our focus is not on whether the target *wants* to learn the news; for example, they may be feel annoyed at being told about their close relationship’s accomplishment. Our reasoning is that it feels *worse* when they discover the news later; upon discovering the news through means other than disclosure, they feel annoyed, but are also left feeling devalued and wondering why they were not directly told this information they felt privy to (Jones et al., 2009).

Nevertheless, we reiterate the findings to two refrains that tend to arise from inspection of our studies. Does it matter how much the target cares about the positive event that occurred to the actor? Yes. However, as we showed in Study 1b, bragging concerns still remained a significant predictor even when accounting for how much they think the positive event was

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<sup>9</sup> Although not a focus of this paper, bivariate correlations showed women were generally more likely to report capitalizing and less likely to express concern about bragging; women also anticipated more positive and less negative emotional responses (see supplementary materials). However, post-hoc interaction models do not show any significant moderation by gender.

significant to their close friend (and thus whether the friend would presumably want to hear about it). Does the actor's prediction of the target's anticipated reaction matter for whether they capitalize? Yes. However, as we showed in Study 3c, their misprediction of their nominated target's reaction is entirely the point: Actors with high bragging concerns tend to overestimate how negatively their target would react.

In our studies, we controlled how targets found out the news later (i.e., on social media). However, even if social media did not occur, the effects of missed capitalization are likely to occur at some point after the event. To illustrate with an example from Study 1c, an actor may have bought a new car, and did not disclose this news when an opportunity to discuss the topic arose with their target. Unless the actor were to ensure that the target never then saw said car or was misled as to when the car was bought, the target is likely to experience the effects of missed capitalization. In practice then, although it may be "adaptive" to avoid capitalizing to one's close relationship for numerous reasons, this may only be true if one is certain their relational partner would not find out later on. At the same time, it is possible that these actors with high bragging concerns may see direct disclosure with their close friends as so aversive that they prefer to avoid direct disclosure with them even if it is made explicitly clear that targets will have a more negative reaction later, because this reaction would be outside of their immediate presence and not require direct contact.

### **Implications**

Although preliminary, our results in Study 4 directly contribute to knowledge on who is likely to avoid capitalizing. For example, past research has found that individuals high in sociotropy, or who have an excessive concern with avoiding conflict and seeking approval in their relationships, also report experiencing greater distress when they outshine other people, and accordingly, may be less likely to engage in positive disclosures with their close relationships (Exline & Zell, 2012; Exline & Lobel, 1999). Other research has also indicated that individuals who are less extraverted and less empathetic are less likely to capitalize (Palmer et al., 2016). Here, our results with extraversion and empathy are consistent with past research. Further, we build on this work by showing that individuals lower in perspective taking, and notably, higher in bragging concerns, are also more likely to report avoiding capitalizing with their close relationships, both on a vignette and on a generalized tendency to capitalize measure.

Of note, these findings on perspective-taking and empathy also stand in contrast to past research looking at whom may avoid capitalizing. Other work has suggested that individuals who are high in empathy may be *less* likely to capitalize because they do not wish for the other person to make upward judgments (Exline & Lobel, 1999). Our work here, however, suggests that, at least in close relationships, people who report higher empathy are more likely to capitalize, not less.

We also contribute to work on social misperceptions and evaluations of bragging behavior. Much research suggests that people who avoid bragging, and who are more generally modest, are socially adroit (Davis et al., 2011). In contrast, our results suggest that individuals who focus on appearing like they are not bragging may be less socially skilled, as self-indexed by lower perspective taking and empathy (Study 4). This decreased perspective taking may be linked to why these individuals may focus on the norm of avoiding bragging, to the neglect of the nuanced prediction of how their close relational partner would react, both to missed capitalization (Study 3b) and direct disclosure (Study 3c). Thus, we have identified one close relational experience where individuals with prosocial intentions to maintain a positive impression may have their actions backfire into negative feelings in a relationship, but also fail to predict these negative outcomes.

Interestingly, related research on bragging has found that individuals who blatantly brag overestimate how positively others will react to their attempts at self-promotion, when they in fact are judged negatively by targets (Scopelliti et al., 2015). This work, however, did not zoom in on a particular type of relationship between actor and target (i.e., close relationships). In this present work, we show that this empathy gap and error in social prediction also affects people who are trying *not to brag*, specifically in the context of close relationships; people who are concerned with not bragging *underestimate* how positively their target will respond. Thus, while individuals generally may benefit from tempering how positively they think others will respond to their attempts at self-promotion, specifically in close relationships, this temperance may be less of a concern, and in fact, some individuals may benefit from amplifying how positively they think their target may respond.

### **Limitations and Future Directions**

Beyond those examined in Study 4, we recognize that there are a multitude of individual differences that concern the actor, target, and the interaction of these two parties that predict



whether capitalization occurs but are beyond the scope of our nine studies. While we made a preliminary analysis of other dispositional correlates of bragging concerns in disclosure, much deeper work on this front is needed, and we encourage future research to pursue these avenues.

In this work, we focused our work to participants in the US, but we encourage future research to consider how (a) rates of avoiding capitalization in actors, and (b) the negative reactions to discovering missed capitalization in targets may differ cross-culturally. To the former question, past research on collectivistic cultures has suggested that actors (relative to actors in individualistic cultures) may be more sensitive to potential envious reactions in targets, more concerned with modest and self-effacing self-presentations, and more greatly value maintaining social harmony in relationships (Exline & Lobel, 1999; Heyman, Itakura, & Lee, 2010; Markus & Kitayama, 1991). In turn, these views may be tied to avoiding capitalization at higher rates than in individualistic cultures. Accordingly, to the latter question, targets in collectivistic cultures may also have relatively attenuated negative reactions when discovering missed capitalization has occurred, due to a growing recognition of these self-presentation concerns.

Consistent with past research, we have reasoned that discovering missed capitalization is deleterious for the target because it perpetuates feelings of exclusion, thus threatening fundamental needs to belongingness (Finkenauer et al., 2009; Jones et al., 2009; Baumeister & Leary, 1995). Future research may also wish to test whether individuals who are more sensitive to exclusion or higher in the need to belong (Leary, Kelly, Cottrell, Schreindorfer, 2013), may show amplified negative reactions when discovering missed capitalization.

Throughout this work, we have described “bragging concerns” as a primary hindrance toward capitalization. We recognize we use one, specific question to index these concerns and variation in these concerns in individuals, and the question is tied to views of bragging in a particular event each time. However, the primary goal of this work is to demonstrate the effects of missed capitalization, not to comprehensively validate a new construct around bragging concerns. While we provide some evidence of the validity of this question, because it generalizes to different types of positive events (Study 1b) and converges with other, relevant individual differences (Study 4), future work may wish to more thoroughly map out the nomological network associated with bragging concerns.

In most of our studies, we use specific vignettes, including one about a job promotion and one about winning a competition, to assess in an experimental way how people would react to missed capitalization without event-related noise obfuscating our primary effects. On the one hand, we recognize that these vignettes may not necessarily resonate or be realistic for all participants, and vignettes rely on imagined responses rather than actual ones. On the other hand, we also consider these vignettes as the best way to compare reactions to discovering missed capitalization (i.e., without awkwardly asking participants to describe a time where they were not told (vs. told) positive news, and then learned of the news when witnessing third parties discussing it). We also have confidence in the generalizability of our vignettes, because we found that the reported tendency to disclose on them was linked to a reported tendency to disclose on several types of positive events (Study 4) and our effects were consistent with the relationships found when we had individuals recall a real-life event (Study 1b). Future research may wish to more thoroughly examine the congruence of these reactions in laboratory settings.

For purposes of consistency, we focused on close friends in this present study as we wanted to make the target amenable to all participants (i.e., not all participants may have spouses or siblings or living parents). However, we recognize that different types of partners within close relationships may vary in their responses (e.g., family vs. friends). On the one hand, based on the self-other overlap literature (Aron & Aron, 2006), we would predict that these negative reactions on the part of the friend discovering that missed capitalization has occurred would intensify with the closeness of the relationship; spouses or kin may amplify the effects we saw in close friendships (cf. Tan, et al., 2015). On the other hand, although kin are generally more intimate than close friends, norms of self-disclosure may also differ than the ones that we describe, and while they are “more intimate,” this may not necessarily predict a more intensely negative reaction upon discovering missed capitalization has occurred. Future research may wish to delve further into these possibilities.

As well, we note that positive and negative emotions appear to be affected differently when targets reported their anticipated reactions to discovering missed capitalization. For example, in Study 2b, we found a significant interaction on negative emotions (i.e., negative emotions increase only when close friends, but not acquaintances are involved), but there was no interaction on positive emotions. Consistent with work that suggests that positive and negative emotional reactions are somewhat independent (Gable et al., 2004; Watson et al., 1988), it may

be that negative reactions in particular are at play when bragging-concerned actors predict how their friends will react, and when targets consider their reactions when they find out about missed capitalization.

### **Conclusion**

People who are concerned that the positive self-disclosures in close relationships would be bragging are more likely to avoid capitalizing when an opportunity exists. They may tend to predict that their relational partner would react more positively to the news if they discovered it through external means. However, this is likely a misprediction. When the relational partner discovers the news, and discovers that an opportunity to capitalize existed and was missed, negative relational and affective consequences occur. Thus, when calculating whether to capitalize in the moment, individuals who are concerned about being seen as bragging should also acutely consider the risks and consequences of missed capitalization when one's relational partner later finds out.

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