

Modesty or Secrecy? The Costs of Being Modest in Close Relationships

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Psychology)
in the University of Michigan
2020

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Dedication

To the reader, for your interest in this research. May it last until the end.

Acknowledgements

This work was supported by a Doctoral Fellowship from the Social Sciences and Humanities Research Council of Canada.

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Abstract

Modesty is regarded positively in social life, yet how it is evaluated by the person toward whom the modest behavior is directed and how it functions in close relationships has seldom been examined. In eleven studies, I examine how modest behavior can result in negative consequences in close relationships, possibly because modest behavior violates relational and conversational norms unique to close relationships. First, in Chapter 1, I provide an overview of how modesty is generally perceived, and how it may function differently and uniquely in the context of close relationships. In Chapter 2, I examine the perceptions of the actors who engage in modest behavior. In Studies 1 and 2ab, I find that modest individuals are less likely to disclose positive, personal news to their close friends when a relevant opportunity exists, out of a concern to not appear boastful. In Studies 3abc, I find that modest non-disclosure may be reflective of a latent individual difference. In Chapter 3, I examine the consequences of modest behavior on the recipients. In Studies 4 – 6, I find that this modest non-disclosure results in negative reactions on the part of the close friend if they later find out about the positive news through an external source, especially if they have high expectations of self-disclosure in close relationships. Critically, modest individuals misperceive this negative reaction; they tend to believe that their close friends would react more positively if they were to find out through means other than direct disclosure. In Studies 7ab, I find that individuals typically recognize that their friends may not disclose out of modesty concerns, but this realization does not attenuate the negative outcomes. Finally, in Chapter 4, I discuss why despite the generally positive perceptions of modesty, being modest with close friends can decrease trust and liking in close relationships.

Chapter 1: Overview of Modest Presentation Concerns

Imagine that you have recently received a prestigious award for your work. Would you share the news with your friends outside the field? What if they asked? You might be proud and want to share this information; at the same time, you might also have concerns about appearing arrogant and boastful for bringing it up. Indeed, modesty is prized in social interactions.

Specifically, *interpersonal modesty* is defined as when people present their achievements or qualities in a tempered, non-boastful way, or downplay them for the purpose of maintaining positive evaluations in social situations (Cialdini, Wosinska, Dabul, Whetstone-Dion, & Heszen, 1998; Davis et al., 2011; Tice, Butler, Muraven, & Stillwell, 1995). Although modesty can also be conceptualized as a privately held trait, we focus on this behavioral presentation of modesty (Tice et al., 1995; Watling & Banerjee, 2007). Much research has shown that modesty can be a presentation strategy that can lead to social success for the modest person, but are there situations where interacting with a friend who is overly modest leads to negative outcomes? In the present research, we ask whether people who engage in modest behavior in their social interactions with their close friends can paradoxically cause, in their friends, increased negative affect and feelings of being rejected and devalued.

Positive Evaluations of Modesty

Past research has extensively shown that modesty is perceived positively (Landrum, 2011). People who are interpersonally modest about their successes are evaluated more positively than those who are boastful, especially if they deemphasize their own role in their

successes (Hareli & Weiner, 2000; Schlenker & Leary, 1982). They are seen as more kind, caring, and psychologically well-adjusted (Exline & Geyer, 2004). Strikingly, even people who lie in the service of being modest (e.g., falsely denying credit for a positive behavior) are still judged more favorably compared with people who are truthful but boastful. Despite lying, modest individuals are also evaluated by others to be more self-aware and accurate in their self-perceptions (Genyue, Heyman, & Lee, 2011; Owens, Johnson, & Mitchell, 2013). Accordingly, interpersonal modesty has generally been found to foster positive relationships. People who are interpersonally modest have higher quality social relationships (Peters, Rowat, & Johnson, 2011), and in teams, leaders who are modest about their role have team members who are more engaged and satisfied with the group (Davis et al., 2013; Owens, Johnson, & Mitchell, 2013).

Modesty as a Social Norm

Not only is being modest evaluated positively, but it may be the social norm, where not being modest may have social costs. People realize by middle childhood that being boastful or self-enhancing towards others is a social norm violation, and even eight-year-olds evaluate their peers who do not conform to this norm negatively (Watling & Banerjee, 2007). This norm of interpersonal modesty certainly manifests in adulthood, where people expect others to make self-deprecating comments, for example, about their physical appearance and workplace successes (Britton, Martz, Bazzini, Curtin, & LeaShomb, 2006; Wosinska, Dabul, Whetstone-Dion, & Cialdini, 1996).

Interestingly, this social norm may be increasingly relevant and manifest itself in relationships with close others (e.g., friends, family, and romantic partners), even though the need to strategically manage one's self-presentation should be less relevant in these contexts (Tice et al., 1995). Indeed, being modest may be a tool that fosters the formation and

maintenance of close relationships, as it suggests that people are less self-focused and selfish, prioritize others, and thus can be trusted (Davis et al., 2013). However, are there situations in which being modest can *decrease* trust and result in negative reactions in one's close relationships? Below, we propose one previously unidentified context where this may occur.

Modest Non-Disclosures

Past research in Western contexts that shows positive links between modesty and relationships has largely only evaluated modesty as the downplaying of one's positive attributes or making external attributions about one's accomplishments (Hareli & Weiner, 2000; Tice et al., 1995). However, modesty can also involve *not* disclosing information that would make one appear positive (Heyman, Itakura, & Lee, 2010). For example, an individual who wins an award may not tell their friends, or someone may anonymously do a favor for their friend but not readily take credit for helping out. In the present research, we focus on this form of modesty: the non-disclosure of new, positive information because of presentational concerns that doing so would appear to be bragging.

This form of modesty has largely only been investigated in cross-cultural, developmental research. For example, Chinese students, relative to Canadian students, are less likely to admit to doing a prosocial task for a peer, or modestly deny that it had been done, because they think that they will be evaluated more positively, especially when an audience of their classmates is involved (Fu, Heyman, Cameron, & Lee, 2016; Heyman et al., 2010). In one vignette study, participants were asked to consider this situation: A child leaves money for their friend for lunch; when the teacher asks the child in front of the class if they were the one who left the money, the child falsely denies doing so (vs. admits to it). Notably, at least when there is an audience to

these events, the child that modestly denies doing so is evaluated more positively (Heyman et al., 2010).

Research like this illustrates that people who are acting modest may not only downplay positive behaviors, but they may outright deny doing them. We raise an additional possibility that has gone unexamined, but that may be more common than outright denying positive behaviors or accomplishments. Rather than deny them, people may simply not disclose them. For example, someone 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 their friends, they may choose to not disclose this accomplishment out of modesty, and reply vaguely that “nothing too significant” has happened at work. Statements like these are not false, but they may be considered *modest non-disclosures*.

To be clear, we define modest non-disclosures as when an individual refrains from sharing *positive, recent, and relevant* news out of an *interpersonal* concern that they would appear to be bragging or boasting. We highlight the positive nature of this phenomenon, because we would not expect individuals to readily disclose negative events (e.g., losing one’s job) that are embarrassing or shameful. These events would elicit avoidance and concealment of this information rather than disclosure (Tangney, Miller, Flicker, & Barlow, 1996). We highlight the recent and relevant nature of this phenomenon (i.e., the domain and topic concerned have come up in conversation), so that we do not expect that individuals are not sharing because they did not think about it, have had the memory subject to decay or dormancy, or because “nobody asked.”

On first glance, one may expect modest non-disclosure to be an uncommon phenomenon. Notably, Rime’s extensive research on the social sharing of emotion shows that people tend to

share the events that elicit positive emotions with their intimate relationships, and most often on the same day the event occurs (see Rime, 2009). Autobiographical and diary studies suggest that this sharing may be universal, occurring at comparable rates across gender, education, ages, and culture (Rime, 2009). Not only does disclosure of positive events allow individuals to further prolong their experience of the associated positive emotions, but at least when close relationships are concerned, disclosure fosters increased relational intimacy and satisfaction (Collins & Miller, 1994; Gable, Reis, Impett, & Asher, 2004; Langston, 1994; Rime, 2009). In sum, disclosure (vs. non-disclosure) should be considered the default behavior, and has benefits for the quality of people's own emotions and the quality of their social relationships. Yet, we posit that an interpersonal modesty concern may nevertheless compete with this natural tendency to want to disclose positive information, and that it is not a rare phenomenon.

Modest Non-Disclosures as Norm Violations

Importantly, what are the consequences of this modest non-disclosure for a close relationship? If and when the friend discovers the news, this modesty may backfire. To illustrate with the earlier example of receiving an award, how would the award recipient's close friend feel if they later found out that their friend had indeed received an award, but also recalls that the event had been described by the friend as "nothing too significant?" We propose that close friends will experience increased negative affect and increased feelings of being devalued in the relationship. Below, we explain why this may be, drawing on past research on norms in self-disclosure, close relationships, cooperation principles, and the effects of information exclusion. Broadly, there is reason to believe that modest non-disclosure in close relationships violates several relational norms.

Norm of Self-Disclosure

First, personal self-disclosures are necessary for developing and maintaining close relationships (A. Aron, Melinat, Aron, Vallone, & Bator, 1997). Thus, while it is a social norm to be modest, authentic self-disclosure of positive information is also a social norm in close relationships, and these two norms must be effectively balanced in social interactions (DePaulo & Kashy, 1998; Laurenceau, Barrett, & Pietromonaco, 1998). Accordingly, the expectation of self-disclosures increases as relationships increase in closeness (Reis & Shaver, 1988). In the case of modest non-disclosures, personal information – especially information that is relevant to the question being asked – is not being shared, which constitutes a violation of this norm.

Norm of Basking in Reflected Glory

Second, additional and relatively unique norms govern conversations and disclosures in close relationships, which may make friends in particular expect that positive information be shared. For example, conversations in close friendships skew towards the discussion of positive traits and behaviors, accompanied by positive reactions (Campbell, Sedikides, Reeder, & Elliot, 2010). Given this norm, friends may in fact expect that such positive accomplishments be disclosed.

Further, friends often include close others in their self-concept, where people think and treat their close relationships in ways akin to how they think about themselves. This self-other overlap implies that people see things that are positive for the self as also positive for the friend (A. Aron, Aron, & Smollan, 1992). By extension, people likely also expect that their friends reciprocate this behavior. Further, they vicariously use their close friends' successes to bolster their own positive sense of self (Tesser, 2000). For example, at least when the accomplishment is in a non-relevant domain, friends are likely to bask and celebrate in the reflected glory of their friends' achievements and successes (Tesser, 1988). These norms suggest that although boastful

behavior generally results in negative evaluations, in the context of a close friendship, these negative evaluations may be attenuated; in fact, the disclosure is appreciated and expected. Not disclosing would violate these norms of sharing and basking in each other's accomplishments.

Consequently, not being disclosed to may result in feelings of being devalued. For example, research has found that people want their friends to ask them for a favor (rather than someone else) and increase their liking for those friends afterwards, even if that favor may be an undue or unreasonable burden that they do not in fact want to perform (Niiya & Ellsworth, 2010; Niiya, Ellsworth, & Yamaguchi, 2006). In other words, people want to be signaled to that they are valued enough to be asked, regardless of their feelings about the ask. Importantly, people do not increase their liking for strangers who ask for the same favor (Niiya, 2015), suggesting that in the context of close relationships, requests or expressions that would otherwise be considered negative or inappropriate can foster closeness, as it signals that the close other is trusted and respected enough to deserve to be the recipient of this request. 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.

Norm of Cooperation in Conversations

Third, norms govern conversations. For example, Gricean maxims posit that information provided in a conversation should aim to be informative and relevant (Berg, 1991; Engelhardt, Bailey, & Ferreira, 2006). In the case of modest non-disclosures, when asked about a relevant domain (e.g., work), individuals are not disclosing information that would provide a relevant and informative contribution to the conversation. Although it is not a lie, should the recipient of a non-disclosure subsequently find out about this information, they may feel negatively that their

close friend violated this cooperative norm that people answer questions directly and informatively when asked.

Effects of Information Exclusion

Fourth, not receiving information that individuals would consider themselves privileged to may be a form of information exclusion, or being kept “out of the loop” (Jones & Kelly, 2010; Jones, Carter-Sowell, Kelly, & Williams, 2009). In turn, this information exclusion, even when it has no meaningful consequence, can result in a decreased sense of belonging, liking, and trust of the individual doing the excluding (Jones et al., 2009). In the context of a close friendship, not being the recipient of a positive self-disclosure may in fact lead to feelings of exclusion from the relationship, eliciting a corresponding increase in negative emotions. In turn, the friend may be left wondering why they were not disclosed to, perhaps assuming that they were pitied or untrusted. In sum, modest non-disclosure in the context of close relationships violates various conversational and relational norms, and consequently, may elicit feelings of being devalued.

The Discloser-Recipient Mismatch

We have outlined several reasons why not disclosing a positive behavior or accomplishment to a close friend can constitute a norm violation. Yet, we also predict that people who are trying to be modest neglect these concerns and underestimate the impact that violating these norms have if their friend later finds out that they were not disclosed to.

First, as we alluded to, individuals who refrain from disclosure may do so out of presentational and judgment concerns. That is, they predict that they will be judged negatively should they disclose. For example, they predict that their friend would consider them arrogant or a braggart, or judge them negatively for making the conversation about oneself. Second, they may not disclose for prosocial reasons. For example, they may predict that their friend would

elicit unfavorable social comparisons or would otherwise react negatively if they found out.

Third, we predict that there is a forecasting error. Separate from any prediction that their friend may react positively or negatively, they may think that their friend would react *more positively* or *prefer* to discover the news through means other than direct disclosure. Certainly, we also propose these reasons are intertwined. Individuals who think disclosure would come off as bragging are *also likely* to predict their friend would react negatively. In other words, we do not suggest that individuals think their friend overwhelmingly wants to learn about the news yet also thinks that disclosure would be perceived negatively.

Thus, we propose that there is a mismatch, where the friend's attitudes are not congruent with these beliefs. As mentioned, disclosure results in greater intimacy and liking; yet, the modest non-discloser may neglect this fact. Specifically, we predict that the friend will react more positively to disclosure than the modest non-disclosers believe, and more negatively than the modest non-disclosers believe should they find out through means other than disclosure. Importantly, we are not positing that their friends would necessarily react with positive emotions; they could feel negatively in response to being told about the accomplishment. Our reasoning simply posits that the recipient of a non-disclosure may feel even *more* negatively if they find out about the accomplishment at a later time.

Overview of the Present Research

No research has investigated this notion of modest non-disclosures as a manifestation of modest behavior, and little research has examined the reactions of the target of the modest behavior, particularly when the target is a close friend. In response, we had several questions in the present research that we explored in eleven studies. In Studies 1 – 3abc, we examined the role of the actor (i.e., the individual engaging in the modest non-disclosure). Specifically, we

asked, is modest non-disclosure a common phenomenon and reflective of a broad, underlying individual trait that converges with theoretically relevant personality constructs? In Studies 4 – 6, we turned our attention to the reactions of the target (i.e., the individual who does not get disclosed to, but later discovers the news). Specifically, we asked, do targets react negatively to modest non-disclosure and are these negative reactions limited to close friends? Who is most likely to react negatively? In Studies 7ab, we examined whether targets react negatively despite recognizing that their friends may have not disclosed out of modesty.

Chapter 2: Actors of Modest Non-Disclosure

Study 1

In Study 1, we first examined whether modest non-disclosure is a common phenomenon, and whether individuals who are higher in their motivation to appear modest are less likely to disclose positive news to their close friends.

Methods

We recruited 160 online participants ($M_{age} = 37.53$, $SD_{age} = 11.68$; 55% female). As this was our initial 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 modesty concern, individuals would decrease in the likelihood of disclosing (i.e., $p = .8$). With 80% power, this analysis proposed an initial sample size of 140 (Demidenko, 2007). 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).

Results and Discussion

Our primary analysis of interest is whether participants who have more modest self-presentation concerns (i.e., not wanting to come off as bragging) would be more likely to engage in modest non-disclosure.

For this analysis, we 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. We found that a full forty percent of participants would not disclose news of their promotion in their response.

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 (i.e., whether promotion or promoted was in the response). The model indicated that perceptions of bragging negatively predicted whether promotion was included in the response ($b = -.51$, 95% CI $[-.72, -.31]$, $z = -4.77$, $p < .001$, OR = .60), suggesting that individuals who are concerned with not appearing to be “bragging” (i.e., modest self-presentation) are more likely to engage in modest non-disclosure. In this case, these results suggest that people higher in modesty are less likely to disclose a positive accomplishment to their close friends.

In an exploratory manner, we also assessed whether gender predicted the likelihood of modest non-disclosure, given knowledge that women are more likely than men to self-disclose in

their intimate relationships (Stokes, Fuehrer, & Childs, 1980). To explore this possibility, we repeated the binary logistic regression above, adding gender as an additional predictor. Gender did not significantly predict the likelihood of disclosure, but modest presentation concerns remained a significant predictor ($p < .05$). Thus, we do not find evidence of gender differences in the likelihood of modest non-disclosure.

Our secondary analysis of interest was to examine whether people who thought that disclosing 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 the disclosure as bragging was negatively associated with predicting their friend’s positive emotions ($r = -.25, p = .001$) and positively associated with their friend’s predicted negative emotions ($r = .49, p < .001$).

In Study 1, we found initial evidence that modest non-disclosures may be a relatively common occurrence in the context of close relationships. Specifically, although positive self-disclosure in close relationships adheres to relational norms, our present results show that people who are concerned with modest self-presentations may be less likely to engage in disclosing a positive event, even to their close friend, perhaps because they predict that their close friend would react negatively to this news. However, do these same modest individuals, who think their friend would react negatively if told about the news directly, think instead that their friend will react more positively if they find out through other means? That is, these modest individuals may think that their friend would react more positively if they found out through Facebook or if they

found out the news through another individual telling them, rather than if they found out through direct disclosure. We set out to answer this question in Study 2ab.

Study 2a

In Study 2a, we set out to investigate whether more modest people believe that their friend would react more positively to the news of their accomplishment if they learned about it later from an external source, rather than learning about it through their self-disclosure. For example, people who engage in modest non-disclosure may do so because they think their friend would be envious upon hearing the news, and that they would be less envious if they learned about the news on Facebook instead.

Methods

We recruited 301 online participants ($M_{age} = 37.15$, $SD_{age} = 12.23$, 55% female), which provides us with 80% power to detect a small effect ($r = .16$). As in Study 1, 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 1) when they found out the news of their promotion.

Results & Discussion

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 more modest self-presentation concerns (i.e., thought the disclosure was bragging or boasting) 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 performed a moderated repeated measures ANOVA. To do so, 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 $R^2 = .03$, $p = .002$. First, there was a main effect of condition. Participants thought that their friend would

feel more positively if they found out about the news at dinner than on Facebook ($M = .61$, 95% CI [.51, .72], $t = 11.61$, $p < .001$). Of particular interest, however, this difference in positive emotions was moderated 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 $R^2 = .04$, $p < .001$). Again, there was a main effect of condition. Participants thought that their friend would feel less negatively if they found out about their job promotion at dinner than on Facebook ($M = -.57$, 95% CI [-.67, -.47], $t = -11.34$, $p < .001$). Again, this difference in negative emotions was moderated 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.

Study 2b

The results of Study 2a suggest that modest individuals are less likely to disclose positive, relevant, and recent news, and are more likely to think that their close friends would rather discover the news through means other than disclosure. However, does this decreased likelihood of disclosure exist because individuals who are modest tend to think that it is unlikely that their close relationships would find out about the news if they were not directly told, and thus, there are no risks to non-disclosure? That is, if they think that their target would be unlikely to ever discover the news, then there is no alternative situation for them to compare how their targets may react. However, if modest individuals were also cognizant that their friend would

find out the news later through other means, perhaps they would be more likely to disclose the news to their close relationships when presented with the opportunity. To address this possibility, we conducted Study 2b, which replicated Study 2a with two minor modifications.

Method

We recruited 325 online participants ($M_{age} = 36.90$, $SD_{age} = 12.24$, 50% female), which provides us with 80% power to detect the small effects found in Study 2a. We presented the same scenario as in Study 2a. 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). However, we added one question where we asked participants how likely it was that their friend would discover the news of their promotion if they did not tell them (1 – not at all likely to 7 – extremely likely).

Afterwards, all participants were presented with the two same 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. In both cases, 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 when they found out the news of their promotion.

Results & Discussion

As in Study 2a, we created positive ($\alpha = .88$) and negative ($\alpha = .94$) composites for the predicted emotions if their friend found out at dinner, and positive ($\alpha = .90$) and negative ($\alpha = .88$) composites for the predicted emotions if their friend found out on Facebook. Then, we created positive and negative emotion difference scores. Again, 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.

Then, we repeated the moderated repeated measures ANOVA to examine whether participants who had more modest self-presentation concerns (i.e., thought the disclosure was bragging or boasting) 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. However, in this case, we also controlled for the extent to which actors thought their targets (i.e., nominated close friend) would discover the news of their promotion if they were not directly told. We regressed the mean-centered perception that disclosing would be bragging and the perception that their close friend would otherwise discover the news onto each of the two difference scores for positive and negative emotions.

For positive emotions, the model was significant, $F(2, 321) = 10.09$, Adjusted $R^2 = .05$, $p < .001$. First, there was a main effect of condition. Participants thought that their friend would feel more positively if they found out about the news at dinner than on Facebook ($M = .44$, 95% CI [.34, .54], $t = 8.64$, $p < .001$). Of particular interest, however, this difference in positive emotions was moderated by perceptions that disclosing the news would be bragging ($b = -.13$, 95% CI [-.18, -.07], $t = -4.49$, $p < .001$). 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. The predicted likelihood of finding out through means other than disclosure was not a significant predictor.

For negative emotions, the same pattern emerged, $F(2, 321) = 10.25$, Adjusted $R^2 = .05$, $p < .001$). Again, there was a main effect of condition. Participants thought that their friend would feel less negatively if they found out about their job promotion at dinner than on Facebook ($M = -.53$, 95% CI $[-.63, -.44]$, $t = -10.79$, $p < .001$). Again, this difference in negative emotions was moderated by whether participants thought disclosing the news would be bragging ($b = .12$, 95% CI $[.07, .18]$, $t = 4.52$, $p < .001$). 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. The predicted likelihood of finding out through means other than disclosure was not a significant predictor.

More generally, individuals' perceptions that disclosure would be bragging was significantly associated with their prediction that their target would find out through means other than disclosure ($r = .20$, $p < .001$). It was not significantly associated with the likelihood of disclosure nor any of the positive or negative emotion composites. Taken together, these associations suggest that modest non-disclosers do not conceal information because they think their close relationships would be unlikely to find out otherwise; in fact, people with high modesty concerns tend to predict that others will find out the news through other means. This raises the possibility that modest individuals may be unbothered by non-disclosure because they think that others will likely find out soon anyway through another source.

The combined results of Studies 1 and 2ab suggest that people who are high in not wanting to be perceived as bragging are less likely to disclose news of an accomplishment to

their close friend, because they think their friend will react negatively. Further, they may believe that their friend would react more positively if they were to find out about their accomplishment without them disclosing it (i.e., on Facebook). Is this tendency to not disclose limited to this particular vignette involving a job promotion, or is it a latent individual difference?

Study 3a

Thus far, we have considered modest non-disclosure in the context of a hypothetical vignette. However, we have also conceptualized modest non-disclosure as a trait with individual differences. From this perspective, we would expect that people who are less likely to disclose news of one positive event (i.e., the job promotion and competition scenarios) would likely also be less likely to disclose several other positive events that occur to them. We examine this possibility in Studies 3abc by creating and validating our own modest non-disclosure scale.

Method

We created a measure that includes 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). Our goal was to examine the factor structure of this measure, where we hypothesized that one latent factor, representing the tendency to disclose positive news, would emerge.

To examine the factor structure, we recruited 307 online participants. 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). Given that we had moderate communalities in the item loadings ($M = .47$), large factor loadings ($> .53$), and a high 15:1 ratio of variables to factors, a minimum sample size of 60 was recommended based on Monte Carlo simulations of the factor

solutions (MacCallum, Widaman, Zhang, & Hong, 1999). 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 & Discussion

We first created a mean composite of all 15 items, which had high inter-item reliability ($\alpha = .92$), but with no item showing high multicollinearity (i.e., $r > .8$). People generally reported being likely to disclose positive events ($M = 3.73$, $SD = .70$), however, examination of a histogram of mean scores showed that the distribution of scores also adhered to a relatively normal distribution (Skew = $-.40$, Kurtosis = $.35$). Our primary goal was to examine whether all the positive disclosure items loaded consistently on to one latent factor. To test this hypothesis, we conducted an exploratory factor analysis. The KMO indicated that a factor analysis was appropriate (overall MSA = $.94$), with the VSS suggesting between one and two factors ($.91 \leq VSS \leq .93$) and visual examination of the scree plot suggesting one factor.

Thus, we compared the factor loadings for one and two factor models, using the oblique Quartimax rotation. A two-factor solution showed that the second factor had low sums of squares loadings (< 1.00). Two items, which also loaded onto the first factor, loaded negatively onto the second factor. In contrast, a one-factor solution showed high sums of squares loadings (> 6.76), appropriate model fit (RMSEA = $.098$), with all items adequately loading onto this factor ($> .51$; see Table 1). In sum, this analysis suggested that a one-factor model was more appropriate in representing the latent construct of modest non-disclosure. In other words, individuals varied on their tendency to disclose positive news to their close friends; this tendency was not specific to

particular positive events, and did not depend on whether the positive news was their “doing” or just a serendipitous occurrence. However, does this measure correlate with our other measures of modest non-disclosure and other theoretically relevant personality constructs?

Table 1. Factor loadings for the modest non-disclosure scale (15 items)

Item	Factor loading
Won a contest.	.715
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

Study 3b

Given our initial validation of our measure of trait modest non-disclosure, we sought to examine whether our trait measure is associated with responses to a scenario of modest non-disclosure. That is, we would hypothesize that modest non-disclosers (i.e., *low* on the disclosure scale) would be *more* likely to think that disclosing would be bragging, elicit a negative reaction from their friend, and thus be *less* likely to disclose when presented with an opportunity to disclose.

Further, our trait modest non-disclosure measure should also be associated with other theoretically relevant constructs. For example, it is likely that modest non-disclosure is negatively associated with extraversion. 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, modest non-disclosure may also be associated

with self-monitoring, or the tendency to adjust one's behavior according to situational demands and perceptions of others' judgments (Snyder, 1974). That is, people who are high in self-monitoring may be particularly likely to adjust their behavior (i.e., not disclose) in response to presentational concerns like being seen as bragging. We also propose that modest non-disclosure should be negatively associated with perspective taking and empathy. As we will detail in subsequent studies, modest non-disclosers have a misperception: They tend to think that their close friends would prefer to find out through means other than disclosure; however, this is a misperception, and close friends in fact prefer to find out through disclosure. Based on this reasoning, we hypothesized that modest non-disclosers may be less likely to realize this fact because they tend to engage in less accurate perspective taking or are less empathic.

Method

We recruited 306 online participants, which with 80% power can detect small correlations ($r = .16$). 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 2a, 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). Then, participants completed the modest non-disclosure scale (Study 3a). In this study, we reverse-scored the items for ease of interpretability with “non-disclosure,” such that higher scores on this measure reflect a higher tendency to *not* disclose.

Subsequently, participants completed a measure of self-monitoring (Snyder, 1974). This 25-item measure¹ ($\alpha = .72$) assesses individuals' tendency to change their behavior to adapt to situational demands. 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 our composite of self-monitoring, such that higher scores reflect higher levels of self monitoring.

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, Elison, & Lennon, 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.

¹ An error in entering the scale items resulted in the omission of item #3.

Results & Discussion

Our primary analysis of interest was to assess whether our modest non-disclosure scale correlated with the other measures we administered (see Table 2). But first, consistent with our past studies, people who thought disclosure of their job promotion would be bragging were less likely to disclose. Further, trait modest non-disclosure was also positively associated with perceptions of bragging and being less likely to disclose. As expected, trait modest non-disclosure was also negatively associated with extraversion, empathy, and perspective taking. However, contrary to our hypothesis, self-monitoring was not correlated with the likelihood of disclosure or trait modest non-disclosure.

Table 2. Correlations among the modest non-disclosure scale and related personality constructs

	1	2	3	4	5	6	7
1. Modest non-disclosure	1.00						
2. Bragging perception	.14*	1.00					
3. Likely to disclose	-.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 our measure of modest non-disclosure, controlling for these other personality measures, significantly predicted whether individuals would disclose on the hypothetical vignette. To examine this question, we constructed a multiple regression model where we simultaneously entered the predictors of (a) extraversion, (b) perspective taking, (c) empathy, (d) self-monitoring, (e) modest non-disclosure, and (f) perceptions of bragging and regressed them onto the likelihood that individuals reported they would share the news of the job promotion with their close friend. The final model was

significant. As detailed in Table 3, trait modest non-disclosure was the strongest negative predictor in this model; perceptions of bragging also negatively predicted the likelihood of individuals disclosing the positive news.

Table 3. Regression coefficients for personality constructs on the likelihood of disclosure

	<i>b</i>	<i>t</i>	95% CI
Bragging perception	-.18	-6.87***	[-.24, -.13]
Modest non-disclosure	-.57	-8.78***	[-.70, -.44]
Perspective taking	.01	.16	[-.14, .16]
Empathic concern	-.01	-.17	[-.14, .11]
Extraversion	-.10	-2.11	[-.21, -.01]
Self-monitoring	-.005	-.39	[-.03, .02]

$F(6, 283) = 24.79, p < .001$, Adjusted $R^2 = .33$

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

Taken together, it appears that modest non-disclosure can be conceptualized as a trait that represents whether individuals tend to disclose positive, personal news with close relationships, and that this trait correlates, but is distinct from, other relevant personality constructs. What is most noteworthy, however, is that our measure of modest non-disclosure (as a general trait) and people who have modesty concerns (perceptions of sharing as bragging) both significantly predict the likelihood of disclosure when presented with a vignette, even when accounting for these other related personality constructs.

Study 3c

One notable construct that we have not assessed, however, is trait modesty, and how this trait may (or may not) converge with our measure of modest non-disclosure. It is important to note that there are several conceptual and response issues with assessing self-reported modesty. Briefly, individuals who are highly modest tend not to report being highly modest when asked how modest they are (see Davis et al., 2011; Landrum, 2011). In fact, individuals who report being highly modest on surveys may be individuals who wish to convey high social desirability

on survey responses rather than being individuals who are truly modest. With these two issues in mind, we may not expect our assessments of modest non-disclosure to necessarily correlate with “trait modesty” and certain research has posited that modesty may not be validly measured with self-reports (Davis et al., 2011). Nevertheless, a discussion of behavior that we consider a manifestation of modesty would be incomplete without assessing whether it may be related to broader conceptualizations of modesty. Thus, in Study 3c, we examine this relationship in an exploratory manner, with these conceptual considerations in mind.

Method

We recruited 217 online participants, which with 80% power can detect small correlations ($r = .19$). After excluding participants who failed an instructional manipulation check, we analyzed a final sample of 196 participants ($M_{age} = 37.86$, $SD_{age} = 11.52$; 59% female).

Participants were presented with the job promotion vignette as in previous studies, and asked to indicate how likely they would disclose to their nominated close friend, and how much they perceived disclosure to be bragging or boasting. Afterwards, participants completed the modest non-disclosure measure and a measure of trait modesty in a randomized order. For the trait modesty measure, we adapted five items from the Humility Scale that most approximated our conceptualization of modest non-disclosure (Factor 5; Landrum, 2011). Participants are asked to indicate their agreement to the items following the stem “I like people who...” (e.g., are willing to admit their inadequacies; try to keep their accomplishments in perspective) on a five-point scale (1 – strongly disagree to 5 – strongly agree). Of note, the stem refers to liking others who possess these traits, rather than to oneself, based on the assumption that people like others who resemble themselves (Landrum, 2011). This assumption is used in an attempt to circumvent

the response bias that exists with self-report measures of modesty that ask individuals to evaluate how humble they themselves are. We took the mean of the five items ($\alpha = .82$), where higher scores reflected higher levels of trait modesty.

Results & Discussion

Our primary analysis was to assess whether a trait modesty measure correlated with our measures of modest non-disclosure. Zero-order bivariate correlations indicated that trait modesty was positively correlated with the likelihood of disclosing on the job promotion scenario ($r = .15, p = .041$), negatively correlated with the perception that disclosure would be bragging ($r = -.19, p = .006$), and not significantly correlated with the modest non-disclosure trait measure. In sum, the trait modesty measure either did not correlate or correlated in the reverse direction that we would theoretically expect. While we present these results for exploration and comprehensiveness, we caution an overinterpretation of these results for the conceptual and measurement issues that we previously discussed.

Chapter 3: Recipients of Modest Non-Disclosure

Study 4

We have now provided evidence for a modest non-disclosure trait, where individuals refrain from disclosure because they (a) perceive disclosure to be bragging, and (b) that their friend would react more positively if they found out through means other than disclosure. However, are these conclusions correct or is there a misperception on the part of these individuals? On the one hand, people who have modest presentation concerns may be correct; friends may have a more positive reaction if they found out about the individual's promotion indirectly than if the individual disclosed it. On the other hand, however, based on our reasoning about modest non-disclosure as a violation of relational and conversational norms in the context of close friendships, we would expect the reverse pattern. Friends (i.e., targets) should react more negatively if they find out that an individual did not disclose positive news to them and they later found out through an external source. Importantly, we do not propose that individuals may necessarily feel overwhelmingly positive about their friends' disclosing positive news; they may in fact feel negatively. Our perspective simply posits that they would nevertheless feel *even more* negatively if they were to find out they were not disclosed towards. With that in mind, we now turn our attention to the target (i.e., the friend who was the recipient of modest non-disclosure). In Study 4, we examined whether people who were the recipients of modest non-disclosures felt more negative and de-valued as a friend (vs. people who received a disclosure) if they were to later find out that their friend had positive news that they did not share.

Methods

We recruited 160 online participants ($M_{age} = 35.74$, $SD_{age} = 10.68$; 55% female), which with 80% power can detect a small effect ($d = .31$). Participants were randomly assigned to one of two vignette conditions. In the modest non-disclosure 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 disclosure 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 (same as in Study 1). They were then asked to evaluate how much they thought their friend felt emotionally close to them, trusted them, and valued them, and how emotionally close they felt to their friend, trusted their friend, and valued their friend (1 – not at all to 7 – extremely).

Results and Discussion

Our primary analysis was to examine whether individuals felt less positive and more negative if they found out about the positive behavior after a friend had engaged in modest non-disclosure. 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 were in the modest non-disclosure condition had lower positive emotions ($M = 2.93$) than people in the disclosure condition ($M = 3.33$), $t(151.5) = 2.54$, 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 modest non-disclosure condition felt devalued by their friend and if they devalued the relationship with their friend as well. We created a composite 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 ($\alpha = .94$). Of note, the two evaluations were highly correlated ($r = .84$, 95% CI [.78, .88], $p < .001$). A Welch t-test showed that people who were in the modest non-disclosure condition ($M = 4.24$) felt less valued as a friend than people in the disclosure condition ($M = 5.51$), $t(144.05) = 5.37$, 95% CI [4.57, 7.11], $p < .001$, $d = .85$, and they devalued their friendship as well ($M = 5.64$ vs. $M = 4.91$), $t(154.99) = 3.30$, 95% CI [3.01, 4.46], $p = .001$, $d = .52$. All group differences remained significant with a Bonferroni correction for four comparisons ($p = .013$).

Of note, we repeated the analysis to examine – in an exploratory manner – whether gender moderated any of the above four dependent variables. To do so, we conducted a between-subjects ANOVA with condition and gender as factors on each of these four variables. No main effect of gender nor an interaction emerged in any case, but the main effect of condition

remained significant in all cases ($p < .05$). Thus, we did not find evidence of gender differences or moderation by gender in how people respond emotionally or relationally when discovering modest non-disclosure has occurred.

We take the results of Study 4 to suggest that individuals expect to receive disclosures about their close friends' positive behaviors and accomplishments. Not being the recipient of positive self-disclosure may lead close friends to feel a host of negative emotions and to feel devalued 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. These findings are consistent with our reasoning that positive self-disclosures signal trust and govern close relationships. When individuals do not engage in positive self-disclosures, close friends may consequently feel that they are not valued or trusted.

This pattern of results supports the proposal that there is a misperception among individuals who engage in modest non-disclosure. As we showed in Studies 1 and 2ab, people high in modesty concerns tend to engage in modest non-disclosure more, because they think that their friends would react negatively if disclosed to, and that the friends would react more positively if they were to find out indirectly (i.e., on Facebook). The present study suggests this judgment is incorrect; in fact, people react with less positive emotions and more negative emotions, and feel devalued in the friendship if they find out about the news on Facebook rather than at dinner. To illustrate, modest non-disclosers may think that their friend would react with jealousy if they were to tell their friend about their promotion at dinner. However, they may fail to recognize that said friend may be even more jealous if they found out the news of the promotion later (via a different acquaintance of their friend) than if they were told the news firsthand.

As we proposed, this pattern of feeling negatively on the part of the friend (i.e., target) should exist because non-disclosure violates the relational and conversational 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 finding out about modest non-disclosure, may simply be that people prefer to learn information about others (i.e., be “in the know”) rather than not.

If this were the case, then people should feel less positive and more negative even if an individual they were not close to (e.g., a new acquaintance) engaged in modest non-disclosure. However, if people are upset because modest non-disclosure is a norm violation in the context of close relationships, then people should only show increased negativity when close friends are involved. In Study 5, we set out to provide further evidence that the negative effects of modest non-disclosures are due to violations of social norms that are expected in close relationships, and not simply due to not obtaining information.

Study 5

In Study 5, we set out to replicate the findings from Study 4 and examine whether the negative effects of modest non-disclosure were restricted to close others, in which not disclosing positive information would be a norm violation, or if these effects would also result from modest non-disclosure 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 online participants ($M_{age} = 36.56$, $SD_{age} = 10.56$; 53% female), which with 80% power can detect a small effect with moderation ($d = .24$). Participants were randomly assigned to read a vignette (the same as in Study 4) that involved modest non-disclosure or

disclosure; they were also randomly assigned to read a vignette that involved either their close friend or a new acquaintance disclosing or not disclosing the news of their promotion at dinner (i.e., a 2x2 between subjects design). As in Study 4, 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 and Discussion

Our primary analysis of interest was whether people who were not disclosed to about an accomplishment and later found out felt less positive and more negative – but only if a close friend was involved. 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 positive emotions and negative 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 negative emotions between the disclosure and non-disclosure conditions, but only when the close friend was the one involved ($Estimate = -.50$, $t(267) = -4.35$, $p < .001$, $d = -.78$). As illustrated in Figure 1, when the target is a new acquaintance, there is no significant difference in negative emotions felt regardless of whether the acquaintance engages in modest non-disclosure. In contrast, when the target is a close friend, engaging in modest non-disclosure results in higher levels of negative emotions compared to when there is disclosure. Further,

examining only the Disclosure conditions (i.e., acquaintance vs. close friend) shows that people respond significantly more negatively when an acquaintance discloses than when a close friend does, consistent with the proposition that modesty (i.e., not bragging) is evaluated more positively – except when close friends are concerned.

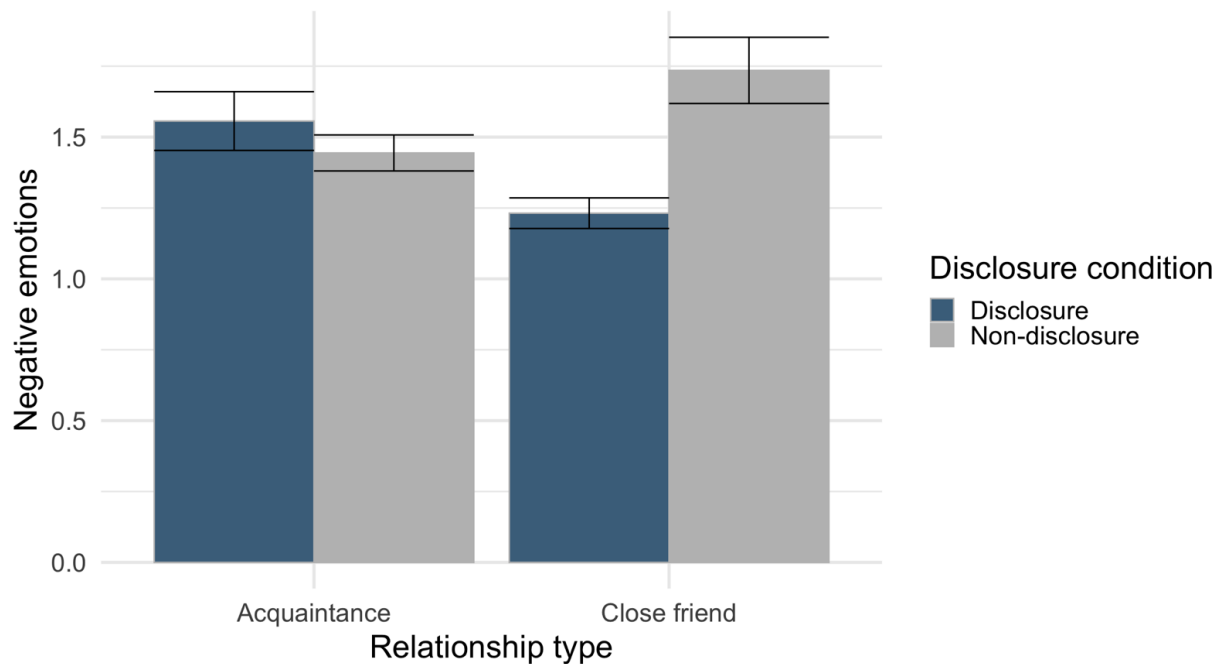


Figure 1. Modest non-disclosure interacts with relationship type to predict negative emotions

Error bars show standard error of the mean.

For positive emotions, the model showed significant main effects of disclosure 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 were disclosed to reported higher levels of positive emotions ($M = 3.16$) than people who were not disclosed to ($M = 2.62$). Similarly, people who read that the target person was a close friend reported higher positive emotions at finding out about the news ($M = 3.20$) than people for whom the target person was a new acquaintance ($M = 2.59$).

Taken together, this pattern of results provides support for the fact that the negative reactions associated with modest non-disclosures may only be evident in the context of close relationships, because of the relatively unique relational norms that govern information sharing and disclosure. The present results suggest that people may not care about modest non-disclosure when it happens with individuals with whom they are not close, and suggest that the negative reactions do not simply exist because people have a generalized desire to obtain information about other people's positive behaviors.

Study 6

We have now provided evidence that people tend to react *more* negatively when they realize that modest non-disclosure has occurred than if they had received disclosure from their close friends. In particular, in Study 5, we demonstrated that this modest non-disclosure may be specific to close relationships; people do not feel more negatively when they realize that an acquaintance did not disclose positive, personal, and relevant news to them. This pattern of results bolsters our reasoning that modest non-disclosure results in negative relational and affective consequences because it violates the authenticity and disclosure norms that characterize close relationships.

In Study 6, we sought to provide further evidence for this notion. Specifically, we hypothesized that individuals who have higher expectations of self-disclosure (clearer belief in such a norm) in close relationships should be particularly susceptible to the affective and relational consequences (e.g., negative affect and feelings of devaluation) that occur when they realize that their friend had refrained from disclosing to them. As well, in Study 6, we sought to test a new situation of modest non-disclosure.

Method

We recruited 206 online participants ($M_{age} = 36.60$; $SD_{age} = 11.45$; 60% female), which with 80% power, is sufficient to detect a small effect with moderation ($F^2 = .038$, $r = .19$, $d = .39$). Participants were randomly assigned to either a vignette of *non-disclosure* ($n = 104$) or *disclosure* ($n = 102$). In the non-disclosure condition, participants read this vignette:

*Imagine that you are out to dinner with a close friend. During your dinner conversation, you ask how their weekend was. They reply that they had competed in an event they had been training for, and it **went all right**. The next day, you see your friend featured in a news article, showing the results of the competition and that they had in fact come in first place.*

In the disclosure condition, participants read this vignette:

*Imagine that you are out to dinner with a close friend. During your dinner conversation, you ask how their weekend was. They reply that they had competed in an event they had been training for, and that they had **come in first place**. The next day, you see your friend featured in a news article, showing the results of the competition and that they had in fact come in first place.*

As in Studies 4 and 5, after reading the vignette, participants nominated the close friend that they were thinking about in this situation, and completed the emotion ratings. As well, they completed the same ratings where they were asked how much they thought their friend felt emotionally close to them, trusted them, and valued them, and how emotionally close they felt to their friend, trusted their friend, and valued their friend.

Finally, participants completed a measure assessing their expectations for disclosure in close relationships. Specifically, we presented participants with a six-item measure ($\alpha = .92$) that completed the stem of “I think it is important that close friends...[e.g., trust each other with

personal information; are authentic in what they say to each other]. Participants indicated their agreement on a seven-point scale (1 – strongly disagree to 7 – strongly agree). We took the composite mean of this measure, such that higher scores reflect higher expectations of disclosure in close friendships.

Results and Discussion

First, we examined whether individuals in the non-disclosure condition reacted more negatively than individuals in the disclosure condition in this new vignette. As in previous studies, we created four-item positive ($\alpha = .85$) and negative ($\alpha = .83$) emotion composites, a three-item composite that assessed whether individuals felt their friend valued, trusted, and felt emotionally close to them ($\alpha = .89$) and a three-item composite that assessed whether individuals valued, trusted, and felt emotionally close to their friend ($\alpha = .91$). Of note, the two three-item composites were highly correlated ($r = .82, p < .001$).

Using Welch t-tests, we found that individuals who were not disclosed to ($M = 1.56$) reported significantly higher negative emotions than individuals who were disclosed to ($M = 1.30$), $t(167.31) = 2.70$, 95% CI [.07, .44], $p = .008$, $d = .38$. In this case, those in the non-disclosure condition did not report significantly lower positive emotions. Nevertheless, individuals in the modest non-disclosure condition ($M = 5.37$) felt less valued as a friend than individuals in the disclosure condition ($M = 5.82$), $t(202.97) = -2.60$, 95% CI [-.89, -.11], $p = .010$, $d = -.36$, and they devalued their friendship as well ($M = 5.49$ vs. $M = 5.94$), $t(195.05) = -2.74$, 95% CI [-.76, -.12], $p = .007$, $d = .38$. All group differences remained significant with a Bonferroni correction for four comparisons ($p = .013$). These results are generally consistent with those found in Study 3.

Our primary analysis, however, was to test the hypothesis that individuals who had high disclosure expectations in their close friendships would react, relative to individuals low in disclosure expectations, particularly negatively. Of note, there were no between-condition differences on disclosure expectations, and they were generally high ($M = 6.07$; $SD = .81$). To test this hypothesis, we conducted a moderated regression, with disclosure condition (0 = non-disclosure; 1 = disclosure), disclosure expectations, and the interaction of these two predictors regressed on the four outcomes that we tested for between-condition differences. There was no significant interaction for positive emotions or either friendship value index. However, the final model for negative emotions was significant ($F(3, 202) = 7.33, p < .001, \text{Adjusted } R^2 = .08$), and was characterized by a significant interaction in addition to the main effect of condition ($b = -.44, t = -3.74, 95\% \text{ CI } [-.67, -.21], p < .001, \text{partial } \eta^2 = .06$). Given this interaction, we examined the simple slopes for individuals high (i.e., $+1 \text{ SD}$) and low (i.e., -1 SD) on disclosure expectations. Only the simple slope for individuals at high levels of disclosure was significant ($b = -.61, t = -4.57, 95\% \text{ CI } [-.87, -.34], p < .001$). As illustrated in Figure 2, for these individuals, non-disclosure (relative to disclosure) predicted higher negative emotions.

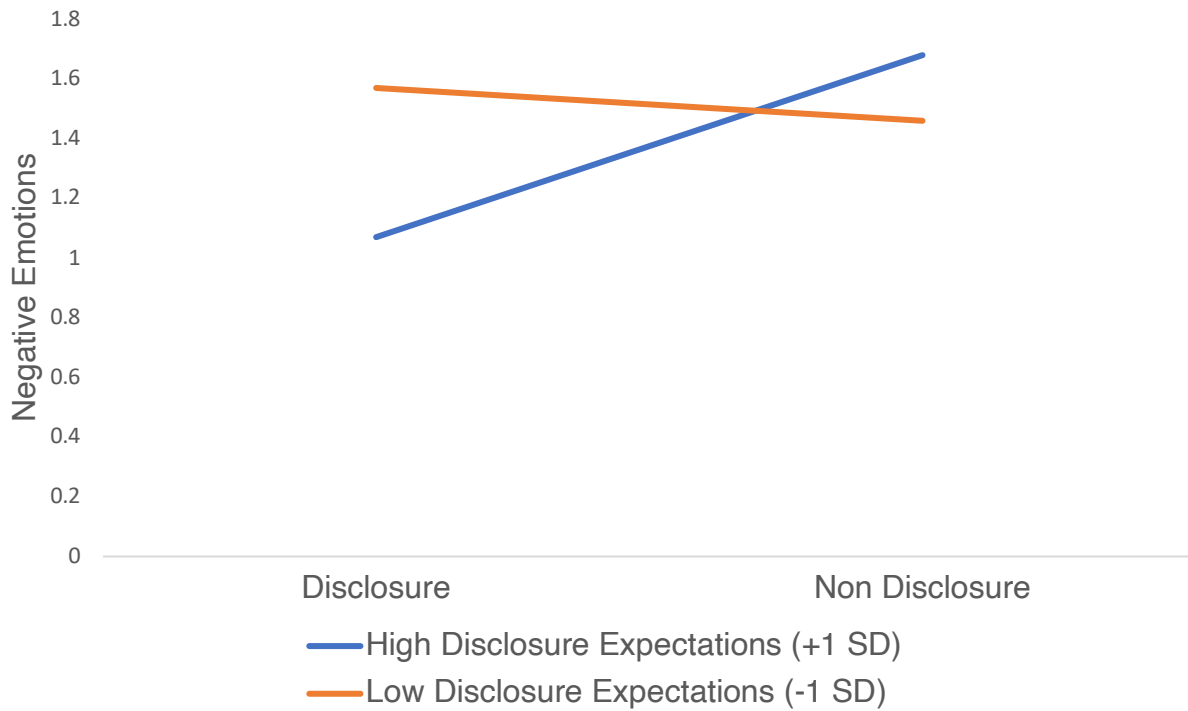


Figure 2. Disclosure expectations interact with modest non-disclosure to predict negative emotions

Taken together, these results suggest that, even with this new vignette, when individuals discover modest non-disclosure has occurred (i.e., they find out the news through an external source), they react more negatively (i.e., with negative emotions and feeling devalued in the friendship) than if they had been told the news directly from their close friend. However, what is most noteworthy is that this negative reaction is particularly pronounced in individuals with high expectations of disclosure in their close friendships, bolstering our proposal that modest non-disclosure elicits negative reactions because it violates the relational norms and expectations that specifically characterize close relationships, not simply because people would prefer to obtain knowledge on other people and events. Given these realizations, do individuals realize though that their friend may have refrained from disclosure because they were concerned about coming off as bragging or boasting? We turn our attention to this question in Study 7.

Study 7a

Thus far, we have shown that people feel negatively when they discover that their friend did not disclose positive news to them, in part because it constitutes a norm violation in the context of these close relationships. But, do people realize that their friends may refrain from disclosure out of modesty concerns? In these two final studies, we asked, in an exploratory manner, what types of attributions or explanations people generate when they discover that their friend did not disclose to them. For example, upon discovering that their friend received a promotion and did not tell them, individuals could think that they were not trusted; alternatively, they may realize that their friend did have interpersonal modesty concerns, such that they were cognizant of the risks of coming off as bragging, and thus did not disclose.

Methods

For this exploratory study, we recruited 100 online participants ($M_{age} = 34.51$, $SD_{age} = 9.98$, 51% female). Like in our past studies, all participants were presented with the vignette of modest non-disclosure, where they were asked to imagine that they are out to dinner with their close friend. They (i.e., the participant) ask their close friend how their work was going, and their friend replied that work was going “all right.” The next day, they discover on Facebook their friend’s coworker congratulating them on their recent promotion. After reading this vignette, they were asked to indicate the first name of the friend they were imagining in this situation. Then they were provided with an open-response prompt of “Why do you think your friend did not tell you about their promotion?”

Results and Discussion

For this analysis, we simply wanted to assess what proportion of attributions recognized that their friend may have not disclosed the news for prosocial reasons, such as (a) not wanting to

appear as bragging or boasting, or (b) not wanting to make them (i.e., the participant) feel negatively.

Two independent coders blind to hypotheses coded each response as to whether there was at least one reason that fell into one of the reasons stated above. That is, a code of 1 reflected recognizing that there was a modesty concern (e.g., “Because she didn’t want to make me feel like she was bragging”), a code of 2 reflected a recognition of the participant’s feelings (e.g., “He didn’t want to make me envious”), and a code of 0 would reflect any other reason (e.g., a “She might have been nervous about the promotion”). The coders had high interrater agreement ($Kappa = .91, z = 12.4, p < .001$).

Between these two coders, 33-35% of responses were coded as recognizing that their friend had presentational concerns about not wanting to brag (e.g., “Didn’t want to seem like he was boasting”), and 18-21% recognizing that there were relational concerns about not wanting to make them feel negatively (e.g., “He doesn’t want to make me envious”). The remaining reasons fell into several different attribution categories that involved how the friend appraised the promotion (e.g., “They were unsure whether it was confirmed” or “They did not want the promotion”).

The results of this study suggest that people recognize that their close friends have interpersonal modesty concerns: up to 56% of attributions generated in response to an episode of modest non-disclosure recognize that their friend may not want to brag or may not want to make them feel negatively by sharing their positive news. In our view, these are generous attributions that assume their friend is acting with prosocial intentions, where they believe that their friend is choosing to appear modest or choosing to preserve their feelings. However, this finding also

raises a related question. Does making these generous attributions reduce the negative reactions that occur when individuals discover modest non-disclosure has occurred?

Study 7b

In Study 7b, we examined whether individuals who made generous attributions for their friend's modest non-disclosure (i.e., recognizing that they did not want to brag; recognizing that the friend did not want to make them feel negatively) results in reduced negative reactions when they discover that positive information was concealed from them. On the one hand, people who make generous attributions about their friend's prosocial intentions (i.e., not wanting to appear bragging) would attenuate any negative reactions if they later found out about the positive news. On the other hand, our findings in Studies 4 and 5 suggest that people may still prefer to be disclosed towards, and may feel negatively even if they make generous attributions for the non-disclosure. In Study 7b, we examined whether there is support for either hypothesis.

Method

We recruited 303 online participants ($M_{age} = 38.56$, $SD_{age} = 13.29$, 53% female), which with 80% power is sufficient to detect a small effect ($d = .23$). We used the same vignette materials as Study 6a. After being presented with the situation and nominating a close friend, participants were asked to evaluate how they would feel various positive and negative emotions after discovering the news on Facebook (as in our previous studies). Then, they were asked to describe why they thought their friend did not disclose the news to them.

As in our previous studies, we created positive ($\alpha = .88$) and negative emotion ($\alpha = .88$) composites. As in Study 7a, we had two independent coders blind to hypotheses code all the open responses. Drawing from Study 7a, where about fifty percent of participants provided a generous attribution, we categorized the responses into two categories: Responses were coded 1

if the participant recognized that their friend may not have wanted to brag or wanted to preserve their feelings; they were coded 0 if they generated any other reason. Interrater agreement was high ($Kappa = .97, z = 22.6, p < .001$). Of the responses, 44% were coded as providing a generous attribution.

Our primary question, however, was whether providing a generous attribution (vs. not) to account for their friend's modest non-disclosure predicted a less negative reaction when discovering the news of their friend's promotion. Because these two groups were not created from random assignment and thus unequal in size and distribution, we used a non-parametric Wilcoxon t-test to account for any violations of homogeneity of variance and normality. What we found was that individuals who made generous attributions did not significantly differ from individuals who did not, on either positive emotions ($M = 2.95$) or negative emotions ($M = 1.81$), $p > .05$. This pattern of results suggests that (a) many people provide generous attributions for their friends' modest non-disclosure, yet (b) they feel no less negatively even having already afforded their friend this prosocial attribution for engaging in modest non-disclosure.

Chapter 4: Discussion of Results

In the present research, we examined the effect of modest non-disclosures in the context of close friendships in eleven studies. Here, we discuss each study's primary findings and discuss our results and their implications taken together.

As discussed, modest non-disclosure occurs when people do not share important, positive news out of a desire to remain modest. Our first goal was to demonstrate that modest non-disclosure is a relatively common phenomenon. In Study 1, we showed that modest non-disclosure is a common presentational strategy for people who are high in modesty concerns. That is, people who had concerns about coming off as bragging or boasting were less likely to disclose the news of an accomplishment, even to a close friend who asked about a relevant domain, perhaps because they anticipate that their friend would react negatively to the news. In Study 2ab, we showed that this modest non-disclosure may occur because people with modesty concerns tend to think that their friends would prefer or would react more positively if they discovered their positive accomplishment through an external source (e.g., a third party on Facebook) rather than being told directly, and this pattern is not because they neglect to think that their friends would be unlikely to discover the news through other means.

In Study 3a, we provided evidence that the tendency to engage in modest non-disclosure is a latent trait. In other words, people who do not share positive, personal news on one occasion (e.g., our vignettes) also tend not to disclose a host of various other positive events that may happen to them. In Study 3b, we showed that modest non-disclosure, conceptualized as a trait,

also converges with theoretically relevant personality constructs, like extraversion, perspective taking, and empathic concern. However, when predicting the likelihood of disclosure in a given scenario, our modest non-disclosure measure, as well as individuals' presentational concerns of modesty (i.e., bragging), still distinctly predict individuals' self-reported likelihood of doing so.

However, we suggest in Study 4 that the forecast that friends will react more positively through means other than disclosure may be a misguided view. Modest non-disclosure may elicit even more negative reactions when the friend who is involved later finds out about the news. When asked to imagine that their friend did not disclose to them (vs. did disclose to them), people reacted with less positive emotions and more negative emotions, and felt devalued by this friend when they later found out the news. What is most noteworthy, however, is that it appears that highly modest people may underestimate the negative reaction that their friend would have if they later find out about the news they did not share.

Further, in Study 5, we showed that this pattern of results may be specific to the context of close relationships. People did not show a significant change in reported negative emotions when they found out that a recent acquaintance they had met did not disclose positive news to them when they asked. Thus, it appears this series of reactions is because specific relational and conversational norms govern close relationships, and people become upset when they find out that their close friends have violated those norms. In Study 6, we further bolstered this finding by showing that individuals who expect high levels of authenticity and disclosure in their close relationships react particularly negatively when they realize that their close friend did not disclose to them.

In Studies 7ab, we provide preliminary evidence that many people do realize that their non-disclosing friend may have interpersonal modesty concerns or concerns for their feelings

(e.g., not wanting to elicit envy by disclosing). What is interesting, however, is that despite people realizing that these prosocial concerns are at play, they still react with the same negative emotions when they find out modest non-disclosure has occurred.

Implications

Taken together, our set of results suggest that modesty, although generally prized in social behavior and relations, can backfire when enacted in the context of close relationships. Specifically, it may result in increased negative emotions and increased perceptions that one is distrusted and unvalued in the friendship. Of note, in the present research, we only examined these consequences when people engage in modest non-disclosure, a specific form of interpersonal modesty that has seldom been investigated before.

Nevertheless, we contribute to knowledge on how modesty, a behavior that is generally evaluated positively, may in fact harm close relationships, perhaps because modesty can violate other relational norms at play, like positive self-disclosure and allowing one's friend to bask in reflected glory. Although some cross-cultural work has suggested that denying or lying about engaging in positive or prosocial behaviors can result in positive evaluations when evaluated by an audience, our present work suggests that concealing or lying about positive behaviors, if the person who is directly involved finds out, does not necessarily result in positive evaluations, at least in a Western context.

When an individual does not disclose important, relevant news to their close friend, and that close friend later finds out, they may feel a host of reactions that are akin to being excluded. As discussed, given that the close friend reasonably expects to be told this type of news (Laurenceau et al., 1998), not being told this news can be perceived as information exclusion, which can lead to the same reactions as being rejected or ignored by someone (e.g., decreased

sense of meaningful existence, self-esteem, and belonging) and lead to decreased liking and trust of the friend (Jones et al., 2009).

Further, while not directly measured in this present work, our exploratory analysis in Study 6 suggests that many people who are the target of modest non-disclosure may then assume that their friend did not disclose out of pity or because their friend thinks they would be jealous of the news. These are attributions that recognize that the non-discloser may have prosocial intentions, but they nevertheless do not eliminate the negative reactions that occur.

We also contribute to knowledge on how interpersonally modest people perceive their social relations. Much work suggests that modesty, as a part of a broader humility trait, emerges from an accurate sense of self and social adroitness (Ashton & Lee, 2005; Davis et al., 2011). In contrast, however, our key findings in Study 4 suggest that highly modest people may in fact engage in a social misprediction of how their close friends would react if they were to find out positive news about them. Specifically, they tend to predict that their friend would react negatively to the disclosure, and that they would react more positively if they found out through means other than their disclosing it. Similarly, our work in Study 3b suggests that these highly modest individuals may have lower tendencies to take the perspective of others and show empathic concern. Our results suggest that interpersonally modest people in fact have the pattern reversed, or alternatively, may differentially focus or be concerned with their friend's immediate reaction in the disclosure situation, rather than their delayed reaction after finding out through a separate source.

Positive gossip spreads quickly and evenly in social networks (Ellwardt, Labianca, & Wittek, 2012), particularly in our social media enabled world. In our present work, we examine a realistic and prevalent situation that occurs. In essence, one individual who is preoccupied with

modesty concerns does not share relevant, positive news to their close friend. Despite not actively bragging and boasting, however, another individual who is incidentally aware of the news (i.e., the coworker) shares this gossip with others in the first individual's social network. Although our vignettes used Facebook or news articles as the platform for sharing this positive gossip, it could have easily been spread through other means, like word-of-mouth. Either way, our work highlights that those who become privy to this gossip indirectly react more negatively than if they were told directly, but critically, those who have the modesty concerns underestimate how negatively their friend would react if they later found out. This misperception on the part of the modest person may have relational consequences.

Limitations and Future Directions

Our present work only examined positive non-disclosures, and it is possible that a different pattern of results would emerge if negative non-disclosures would occur. For example, if a friend did not disclose that they did *not* get their highly sought after job promotion, and their close friend later found a sympathy message on Facebook from their coworker, we may expect that their friend may not feel as negatively about not having negative news disclosed to them. However, our current conceptualization of modesty, like extensive past research, has defined it as the downplaying or tempering of accomplishments or other positive traits or behaviors. Future research may wish to compare how positive and negative non-disclosures may elicit different reactions in friends who later find out.

For purposes of consistency, we focus 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, we would predict that these negative reactions on the part of the friend discovering that modest non-disclosure has occurred would intensify with the closeness of the relationship; spouses or kin may amplify the effects we saw in close friendships (c.f., Tan, Zhan, Gao, Fan, Chen, & Zhong, 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 modest non-disclosure 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 by the role of modest non-disclosures. For example, in Study 4, 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. In Study 5, our vignette did not significantly lower positive emotions, but did raise negative emotions. Consistent with work that suggests that positive and negative emotional reactions are somewhat independent (Watson, Clark, & Tellegen, 1988), however, it may be that it is particularly negative reactions that are at play when modest individuals predict how their friends will react, and when individuals consider their reactions when they find out about modest non-disclosure.

In our set of studies, we always have the target (i.e., the close friend) find out about the news through a separate source (i.e., on Facebook or through a news article). It is reasonable to posit that people who engage in modest non-disclosure may not readily predict or anticipate that their close friend or other target would likely find out from another source (e.g., in our studies, on Facebook), and thus, they have no hesitation about engaging in modest non-disclosure. This raises an interesting possibility that if they were reminded, or it became salient to them that

disclosure is a norm in close relationships and that their friend may react negatively if they later found out, people may be less likely to engage in modest non-disclosure.

At the same time, however, our results in Study 2ab suggest that people who are highly modest may nevertheless not disclose, as they tend to think that their friend would react just as positively, if not more positively if they found out about the news on Facebook than through disclosure.

Similarly, some participants may be engaging in modest non-disclosure because they were thinking about a friend that was invested in the outcome, like a friend who works at the same workplace as them. However, our vignette was designed and worded so as to not involve the friend as competition (i.e., one's promotion has no influence on the friend's success or performance), which may elicit additional, and arguably more justifiable concerns for concealing success (Arnett & Sidanius, 2018; Swencionis & Fiske, 2016). Nevertheless, future research should explore other motivations that modest non-disclosers may hold. That is, modest non-disclosers may refrain from disclosure for "prosocial reasons." For example, they think their friend may engage in negative social comparison if they received this news, even if unrelated to them, and are thus doing their friend a favor by preserving their feelings and not disclosing.

Finally, we also added to the modesty literature by creating a new self-report measure of modest behavior. The self-report options to assess trait humility and modesty are limited. Thus, we urge future research to continue developing measures to assess broader humility and modesty, and assess how these measures may converge with our modest non-disclosure measure.

Conclusion

Modest non-disclosure occurs when individuals do not disclose positive information or accomplishments in service of modesty motives. Although modest people may prize this

behavior in their friendships, in the present set of studies, we find that engaging in modest non-disclosure may result in their friends having increased negative emotions and negative evaluations of the friendship if they discover that the opportunity to disclose was present but that the information was withheld.

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