

Baring Your Soul: The Good, the Bad, and the Bad Again

by

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### **Author's Declaration**

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## Abstract

People with lower self-esteem (LSEs) exhibit a paradoxical pattern of self-disclosure (Wood & Forest, 2016). On one hand, they self-disclose less overall than people with higher self-esteem (HSEs), seemingly to protect themselves from possible criticism or rejection. On the other hand, when LSEs do self-disclose, they make more negative disclosures—focusing on negative events, experiences, or emotions—which other people often do not like. Why would LSEs disclose so much negativity if they are usually self-protective? We proposed that LSEs disclose a lot of negativity because they do not understand that their negativity is problematic. Across three studies, we examined LSEs' perceptions of how their frequency of negative disclosures compares to that of others, as well as LSEs' understanding of the potential negative consequences of negative disclosures. Results showed that: (a) LSEs report making more negative disclosures, and being more negative overall, relative to the norm than HSEs do (b) both LSEs and HSEs expected others to react less favorably to negative disclosures than to positive ones, and (c) compared to HSEs, LSEs expected less favorable reactions to all disclosures. These studies suggest that LSEs do, in fact, understand both that they express more negativity than is typical and that their negativity is generally not well received. Yet LSEs persist in making negative disclosures nonetheless, which leaves the paradox still unexplained. Although the paradox remains to be resolved, we have effectively ruled out two plausible explanations for LSEs' negativity and narrowed the focus for future investigations.

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## **Dedication**

To my beloved wife, Kya, and our beautiful son, Gilbert Bruce Smith.

You will always be in our hearts, our little Gilbert bean,  
and one day we will hold you in our arms again.

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## **List of Abbreviations**

LSE            People with lower self-esteem

HSE            People with higher self-esteem

## **Introduction**

Picture yourself sitting in a park with a close friend, catching up over a cup of coffee. During your conversation, you talk about a variety of mundane topics, but then your friend uncharacteristically opens up to you about a negative situation they have been struggling with recently. Now picture yourself having a conversation with a different friend. This friend often complains, self-deprecates, or unloads about everything negative that has been happening in their life. Today this friend, once again, shares a negative situation they have been facing. How would you feel about each friend sharing this information with you? Would your reaction depend on which friend opened up to you?

Many people would welcome the negative disclosures of the first friend, who rarely focuses on the unpleasant, but feel annoyed by the second friend, who seems to do so constantly. The contrast between these examples illustrates that what can be a very constructive and healthy relationship process—negative self-disclosure—can be less appreciated or even annoying when it occurs excessively. Who are these people who frequently disclose an excessive amount of negativity, and why do they do so? In this research, we focus on people with lower self-esteem (LSEs), who express negativity much more than their higher self-esteem counterparts (HSEs; Forest & Wood, 2012; Wood & Forest, 2016). We will explore the most intuitive and straightforward explanation for LSEs' negativity, namely that they do not realize that their negativity is a problem. If LSEs: a) fail to recognize that they are overly negative, or b) underestimate the consequences of negative disclosures, that could explain why they are more willing to express so much negativity. We will present three studies investigating LSEs' understanding of their own negative disclosures.

## **Self-Disclosure**

As human beings, we all share the fundamental need for social connection (Baumeister & Leary, 1995). Forging these connections involves drawing close to another person, building trust, and letting them in. Hence, self-disclosure—the process of revealing personal information about oneself to another (Sprecher & Hendrick, 2004)—is a key aspect of developing and maintaining social connections (Graham et al., 2008; Stafford & Canary, 1991). Higher levels of self-disclosure have been associated with the establishment and maintenance of intimacy (Reis & Shaver, 1988), and increased liking (Collins & Miller, 1994).

Our opening scenarios involved a specific form of self-disclosure, which we refer to as negative disclosures. We define a “negative disclosure” as any disclosure about a negative event, experience, or emotion. Disclosures of negative emotions, specifically, are seen as more intimate than those of positive emotions (Howell & Conway, 1990), perhaps because they signal trust in the partner. Negative disclosures can confer several important benefits for relationships. Graham et al. (2008) found that willingness to express negative emotions was positively associated with both quantity and intimacy of social ties. Expressing negative emotions also elicits others' helping (Graham et al., 2008).

Negative disclosures also have been linked to several negative relationship consequences, however. Dalto et al. (1979) found that people hold less favorable attitudes towards a target who discloses negativity compared to positivity. People are also less responsive to negative disclosures made by individuals who are frequently negative (Forest et al., 2014) and tend to like these people less (Bell, 1978; Sommers, 1984). These findings suggest that when negative disclosures are used chronically or inappropriately, they may undermine the very intimacy and connection they are intended to create. Evidence also suggests that depressed individuals, who tend to make more frequent expressions of negativity, are more likely to experience interpersonal

rejection following an interaction (Marcus & Nardone, 1992). Thus, a fine line may exist between relationship-building and relationship-diminishing negative disclosure. What would cause someone to cross that line into the excessive? To address this question, we now turn to LSEs, who tend to express negativity frequently (Forest & Wood, 2012; Wood & Forest, 2016).

### **Differences in Self-Disclosure as a Function of Self-Esteem**

In the present studies, we examine the disclosures of LSEs, their perceptions of how their disclosures compare to others', and the responses they expect to receive following their disclosures. Self-disclosing is an inherently risky activity. When we reveal personal information about ourselves, we risk being rejected for what we have shared. This risk of rejection may be central to LSEs' approach to self-disclosure. LSEs are highly attentive to rejection cues (Dandeneau & Baldwin, 2004), tend to self-protect in relationships (Murray et al., 2008), and are less willing to enter into social situations when the possibility of rejection exists (Anthony et al., 2007). Perhaps such self-protective tendencies account for the evidence that people lower in self-esteem make fewer self-disclosures overall (Gaucher et al., 2012). Interestingly, when LSEs are made to feel as if acceptance is assured, they become just as willing to disclose as HSEs (Gaucher et al., 2012). These findings suggest that the reason LSEs make fewer self-disclosures is to avoid rejection.

Recall, however, that LSEs disclose negativity more frequently than HSEs (Forest & Wood, 2012; Wood & Forest, 2016). Why do LSEs express so much negativity, if others do not like it and LSEs are especially fearful of rejection? Wood and Forest (2016) suggested possible explanations for this seemingly paradoxical behavior, which we see as falling into three main categories.

The first category involves base-rate differences in negative experiences: LSEs express more negativity because they experience negative events more frequently. Forest and Wood (2015) found that LSEs interpret events as being more negative than do HSEs, which could lead them to experience more negativity. However, the researchers also found that, when controlling for negativity experienced, LSEs still expressed more negativity than HSEs. This result suggests that base-rate differences in negative experiences cannot fully explain LSEs' negativity.

The second category of explanations for LSEs' paradoxical self-disclosure of negativity involves motivation and ability. Specifically, according to this category of explanation, LSEs understand that their negativity is a problem, but lack the motivation or ability to regulate it. Forest and Wood proposed that LSEs may frequently express negativity even though other people do not like it because LSEs get something else out of expressing negativity, such as caring and support. Another possibility is that LSEs would like to inhibit their negativity but have difficulty doing so. Little research has addressed these possible explanations.

The third category of explanations involves problem detection: LSEs may not realize that they express more negativity than other people, or they may not understand how others react to negative disclosures (Wood & Forest, 2016). LSEs consistently report more frequent negative disclosures than do HSEs (e.g., Gaucher et al., 2012), but it is unclear whether they understand how their disclosures compare to other people's (i.e., the norm). The current research examines the proposal that LSEs do not understand their negativity is problematic. Specifically, we examine two possible issues with LSEs' problem detection: a) LSEs may not understand that they express more negativity than the norm, and b) LSEs may fail to recognize the social consequences of expressing excessive negativity.

## **Current Research**

The purpose of this research is twofold. First, we aimed to determine whether LSEs recognize that they express negativity more often than other people (i.e., the norm). Second, we sought to investigate LSEs', relative to HSEs', understanding of the consequences of negative disclosures. In three self-report studies, we examined participants' perceptions of how their disclosures compared to the norm, the consequences they expected for their self-disclosures, and the consequences they expected for others' disclosures. Our focus was not on the objective norms and risks associated with negative disclosures, such as the number of negative disclosures an average person makes in a week or whether another person actually criticized the discloser. Rather, our questions, Do LSEs know that they disclose more negativity than most people?, and Do LSEs know that other people often do not appreciate their negativity?, call for examining participants' own perceptions of norms and expectations of consequences. Hence, self-report measures are the most appropriate tools for our investigation.

In Study 1 we investigated LSEs' perceptions of how their typical disclosure patterns compared to other people's in general. We expected to find that LSEs fail to recognize that they disclose more negativity than most other people. Hence, we expected that LSEs do not differ from HSEs in terms of how they think they compare to the norm.

In Study 2 we aimed to establish that both LSEs and HSEs have an accurate understanding of the consequences of disclosures, in that they anticipate worse social consequences for negative disclosures than for positive ones. However, we hypothesized that this effect would be moderated by self-esteem—specifically, that LSEs do not anticipate the full degree to which others dislike negativity.

In Study 3 we asked whether LSEs anticipate different consequences for their own disclosures compared to others' disclosures. This distinction could be crucial for designing interventions to address LSEs' negativity.

## Study 1

### Method

#### *Participants*

318 undergraduate psychology students (gender, 55 male, 260 female, 3 other; age,  $M = 20.29$  years,  $SD = 2.87$ ) were recruited online through the Psychology Department's participant pool platform.

#### *Procedure*

Participants completed an online questionnaire for bonus credit in a psychology course of their choice. Participants completed the measures of self-disclosures and perceived norms of disclosures described below in counter-balanced order. Participants then completed the three personality measures described below, which were presented in randomized order.

#### *Measures*

**Self-Disclosure Patterns.** Participants completed a 20-item scale assessing their typical negative and positive self-disclosure patterns (see Appendix A). The 20 items were divided into four subscales:

**Disclosure Frequency.** Nine items that measured frequency of disclosures (e.g., "How often do you complain to your closest friend?"), were each accompanied by a seven-point response scale (1 = *Never/Very rarely* to 7 = *Many times a day*). Five of these items involved negative disclosures and the remaining four involved positive disclosures (e.g., "How often do you express positive emotions [e.g., joy, happiness, excitement] directly [i.e., by talking about them] to your closest friend?").

**Likelihood of Disclosure.** Previous research has typically examined only disclosure frequency but doing so confounds base rates of negative experiences with participants'

willingness to disclose such experiences. When respondents say that they disclose little negativity, does that mean they have few negative experiences, or that they inhibit their disclosures of the negative experiences they have had? In the present studies, we attempted to disentangle the two by assessing participants' willingness to disclose negative and positive experiences as well as participants' experiences of inhibiting disclosures.

Eight items measured how likely participants were to disclose specific experiences if they experienced them (e.g., "When you experience negative emotions [e.g., worry, sadness, anger], how often do you express them directly [i.e., by talking about them] to your closest friend?"). The response scales for these items consisted of 100-point slider bars (0 = *Never* to 100 = *Always*), representing the percentage of experiences participants typically choose to disclose.

***Holding Back Disclosures.*** Two items measured participants' perceptions of how often they actively limit their disclosures (e.g., "How often do you find yourself trying to 'hold back' negative thoughts or emotions when talking to your closest friend?"). The response scale was a 100-point slider (0 = *Never* to 100 = *Constantly*).

***Overall Negativity / Positivity.*** A single item measured participants' perceptions of how others view them (e.g., "Overall, how negative vs. positive would your closest friend say you are?") on a nine-point scale (1 = *extremely negative* to 9 = *extremely positive*).

***Comparison to Self-Disclosure Norms.*** Participants completed a 20-item scale adapted from the self-disclosure patterns scale described above (see Appendix B). The items were modified to ask participants to directly compare their typical disclosure patterns to those of other people in general (e.g., "Do you think you complain to your closest friend more often, or less often, than other people do to their closest friends?"). Participants were asked to complete this scale focusing on a specific close friendship.

**Personality Measures.** Self-esteem was measured using a version of the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) that involved nine-point response scales for each item, rather than the original four (see Appendix C). This alteration was made to widen the range of scores on the measure. Measures of agreeableness and attachment style also were included, but we do not report those results here (see Appendices D and E).

### **Disclosure Summary Scores**

Across several previous studies of disclosure frequency and likelihood that we conducted, we calculated reliability on the two scales involving disclosure frequency (five items for negative disclosures and four items for positive disclosures) and the two scales involving likelihood of disclosure (four items for negative disclosures and four items for positive disclosures) to determine whether any items should be removed. Three items met our exclusion criterion (i.e., reducing the scale alpha by  $> .03$ ; one disclosure frequency item, and two likelihood of disclosure items), so we removed them and averaged the remaining items to create summary scores representing frequency of negativity, likelihood of negativity, frequency of positivity, and likelihood of positivity.

#### ***Disclosure Frequency***

Following the groupings obtained from our reliability analyses, we created two summary scores: frequency of negative disclosures ( $\alpha = .86$ ) and frequency of positive disclosures ( $\alpha = .83$ ). Corresponding summary scores were also calculated for perceived norms ( $\alpha = .74, .77$ ).

#### ***Likelihood of Disclosing***

Again, following the groupings from our reliability analyses, we created two summary scores: likelihood of negative disclosures ( $\alpha = .83$ ) and likelihood of positive disclosures ( $\alpha = .65$ ). Corresponding summary scores were also calculated for perceived norms ( $\alpha s > .64, .75$ ).

## **Results**

Before examining our main questions about self-disclosure norms, we first examined self-reports of typical disclosure patterns, including our novel items about the likelihood of self-disclosing if one has a negative or positive experience.

### ***Disclosures to Closest Friend***

We calculated bivariate correlations between each of the four variables involving making disclosures to one's closest friend (frequency of negative disclosures, likelihood of negative disclosures, frequency of positive disclosures, likelihood of positive disclosures), self-esteem, participants' experiences of holding back negative disclosures and positive disclosures, and participants' responses to the "Overall, how negative vs. positive would your closest friend say you are?" item. Results are presented in Table 1. Lower self-esteem was associated with higher frequency of negative disclosures (replicating prior research), lower frequency of positive disclosures, lower likelihood of making both negative and positive disclosures, greater withholding of both negative and positive disclosures, and expecting that one's friend will rate one as being more negative.

Table 1

*Bivariate Correlations Between Seven Disclosure Variables and Self-Esteem (Study 1)*

	1	2	3	4	5	6	7
1. Self-esteem							
2. Frequency of Negativity	-.14*						
3. Likelihood of Negativity	.21***	.50***					
4. Frequency of Positivity	.17**	.63***	.39***				
5. Likelihood of Positivity	.32***	.31***	.71***	.60***			
6. Holding back Negativity	-.23***	.09	-.09	<.01	-.02		
7. Holding back Positivity	-.17**	.12*	-.12*	-.12*	-.28***	.34***	
8. Negativity vs. Positivity	.49***	-.12*	.12*	.26***	.36***	-.06	-.20***

†p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

### *Perceived Self-Norm Difference*

We calculated bivariate correlations between five norm variables corresponding to those in Table 1 (i.e., frequency of negativity, likelihood of negativity, frequency of positivity, likelihood of positivity, and negativity vs. positivity rating) and self-esteem. Results are presented in Table 2. LSEs, compared to HSEs, reported disclosing negative events and emotions to their friends more often relative to the norm. LSEs also reported disclosing positive events and emotions less and being less willing to disclose about a given positive experience, relative to the norm, than did HSEs. On the final item, “Overall, how negative vs. positive do you think you are compared to other people in general?,” LSEs rated themselves as more negative relative to the norm than did HSEs. Specifically, LSEs rated themselves as being more negative than the norm (i.e., significantly below the midpoint of the scale) and HSEs rated themselves as being more positive than the norm (i.e., significantly above the midpoint of the scale).

Table 2

*Bivariate Correlations Between Five Perceived Self-Norm Difference Variables and Self-Esteem*

	1	2	3	4	5
1. Self-esteem					
2. Frequency of Negativity	-.15**				
3. Likelihood of Negativity	.06	.77***			
4. Frequency of Positivity	.25***	.33***	.47***		
5. Likelihood of Positivity	.24***	.35***	.53***	.91***	
6. Negativity vs. Positivity	.61***	-.11*	.11 <sup>†</sup>	.47***	.41***

<sup>†</sup>p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

## Discussion

Study 1 replicated past findings regarding disclosure frequency in that LSEs reported expressing negativity more often than did HSEs. Consistent with LSEs' tendency to self-protect, LSEs also reported holding back both negative and positive disclosures from their friends more often than did HSEs.

Although previous studies have consistently demonstrated that LSEs report disclosing less overall than HSEs, this study is the first to our knowledge to investigate LSEs' experiences of actively limiting their disclosures.

Do LSEs understand that they express more negativity than most people? Counter to our expectations, LSEs reported disclosing more negativity relative to the norm compared to HSEs and rated themselves as more negative than the norm, overall. These results provide clear evidence that LSEs do understand that they disclose more negativity than most and effectively rule out our first explanation for LSEs' negativity (i.e., that LSEs do not understand how negative they are compared to the norm). We must concede, however, that LSEs may not have a clear understanding of what the norm is. They may think about what the norm might be only when explicitly instructed to compare themselves to a norm. We will expand on this possibility in the general discussion.

## Study 2

Study 1 provided evidence that LSEs do understand that they are more negative than the norm, effectively ruling out our first possible explanation. In Study 2 we turned to our second possible explanation, namely that LSEs fail to recognize the social consequences of disclosing excessive negativity. We expected that both LSEs and HSEs would anticipate worse social consequences for negative disclosures than for positive ones, but that this effect would be moderated by self-esteem. Specifically, we expected that LSEs would underestimate the extent to which others dislike negativity. Further, consistent with LSEs' tendency to disclose less in general (Gaucher et al., 2012), we hypothesized that LSEs would anticipate worse consequences for both types of disclosures, compared to HSEs.

### Method

#### *Participants*

We recruited 190 undergraduate psychology students (gender, male = 35, female = 155; age,  $M = 20.39$  years,  $SD = 4.23$ ) online through the Psychology Department's participant pool platform. All participants were required to be in a romantic relationship at the time of the study (relationship length,  $M = 21.47$  months,  $SD = 30.00$ ).

#### *Procedure*

Participants completed an online questionnaire for bonus credit in a psychology course of their choice. Participants completed the measures of self-disclosure patterns and perceived consequences of disclosures described below in counter-balanced order. Participants then completed the three personality measures described below in randomized order.

#### *Measures*

**Self-Disclosure Patterns.** Participants completed the 20-item self-disclosure scale used in Study 1. Participants completed this scale twice, once for a close friendship and once for a romantic partnership. Because this paper is focused on close friendships, only those results will be presented here. For the full results for the romantic partnership context, see Appendix F.

**Expected Consequences of Disclosure.** Participants completed a 15-item measure of expected consequences of disclosures (e.g., “When I tell my closest friend about positive events or situations in my life, he/she will usually be supportive.”) using Likert scales (1 = *strongly disagree* to 7 = *strongly agree*; see Appendix G). This measure was completed for four stems involving positive disclosures about events, negative disclosures about events, positive disclosures about emotions, and negative disclosures about emotions. For each of the four stems, eight items assessed negative consequences (e.g., “... resent me for it,” “... look down on me”;  $\alpha > .93$ ) and seven assessed positive consequences (e.g., “... like me more because of it,” “... be supportive”;  $\alpha > .86$ ). Two additional items measured cumulative consequences of negative disclosures (e.g., “How often does your closest friend tell you that you are overly negative/depressing?,” “How often does your closest friend tell you that you complain too much?”) using six-point scales (1 = *More than once a week* to 6 = *I’ve never been told that*). Participants completed this scale twice, once for a close friendship and once for a romantic partnership.

### **Personality Measures.**

Participants completed the same measures of self-esteem, agreeableness, and attachment style described in Study 1.

### **Consequence Summary Scores**

We created four summary scores representing positive reactions to positive ( $\alpha = .93$ ) and negative disclosures ( $\alpha = .93$ ) and negative reactions to positive ( $\alpha = .97$ ) and negative disclosures ( $\alpha = .98$ ). We created these summary scores by averaging expected consequences for disclosures about events with those about emotions for each of the four combinations of disclosures (i.e., negative and positive) and consequences (i.e., negative and positive).

## **Results**

We again began by examining self-reports of typical disclosure patterns.

### ***Disclosures to Closest Friend***

As we did for Study 1, we calculated bivariate correlations between each of the four variables involving making disclosures to one's closest friend (frequency of negative disclosures, likelihood of negative disclosures, frequency of positive disclosures, likelihood of positive disclosures), the two holding back disclosures items, the "Overall, how negative vs. positive would your closest friend say you are?" item, and self-esteem. Results are presented in Table 3. Replicating Study 1, compared to HSEs, LSEs reported disclosing negative events and emotions to their friends more often, holding back both negative and positive disclosures from their friends more often, and reporting that their friends see them as being more negative. LSEs also reported being marginally less willing than HSEs to disclose to their friend about a given positive experience. No significant effect of self-esteem emerged for likelihood of making negative disclosures or frequency of positive disclosures.

Table 3

*Bivariate Correlations Between Seven Disclosure Variables and Self-Esteem (Study 2)*

	1	2	3	4	5	6	7
1. Self-esteem							
2. Frequency of Negativity	-.31***						
3. Likelihood of Negativity	-.08	.61***					
4. Frequency of Positivity	-.07	.65***	.52***				
5. Likelihood of Positivity	.14 <sup>†</sup>	.32***	.66***	.61***			
6. Holding back Negativity	-.30***	.19**	.14 <sup>†</sup>	.08	.14 <sup>†</sup>		
7. Holding back Positivity	-.26***	.17*	.17*	.04	.01	.50***	
8. Negativity vs. Positivity	.43***	-.19*	-.01	.17*	.23**	-.11	-.14 <sup>†</sup>

<sup>†</sup>p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

### *Expected Consequences of Disclosures*

To account for the non-independence in the data arising from the within-subjects design, we created a random-intercept multilevel model using the lme4 package in R (Bates et al., 2015). Consequence valence and disclosure valence were nested within participants with self-esteem as a Level 2 predictor and mean expected consequences as the dependent variable. A significant main effect emerged for consequence valence,  $\beta = 1.50$ ,  $SE = 0.05$ ,  $p < .001$ , such that participants reported greater expectations of positive consequences compared to negative ones. A significant Self-Esteem x Consequence Valence interaction emerged,  $\beta = 0.25$ ,  $SE = 0.05$ ,  $p < .001$ , such that the effect of consequence valence was smaller for LSEs compared to HSEs (see Figure 1). Specifically, LSEs reported higher expectations of negative consequences, and lower expectations of positive consequences, than did HSEs. A significant Disclosure Valence x Consequence Valence interaction also emerged,  $\beta = 0.08$ ,  $SE = 0.05$ ,  $p = .040$ , such that the effect of consequence valence (i.e., that positive consequences were expected more than negative ones) was smaller for negative disclosures than for positive disclosures.

Table 4

*Expected Consequences by Self-Esteem, Consequence Valence, and Disclosure Valence*

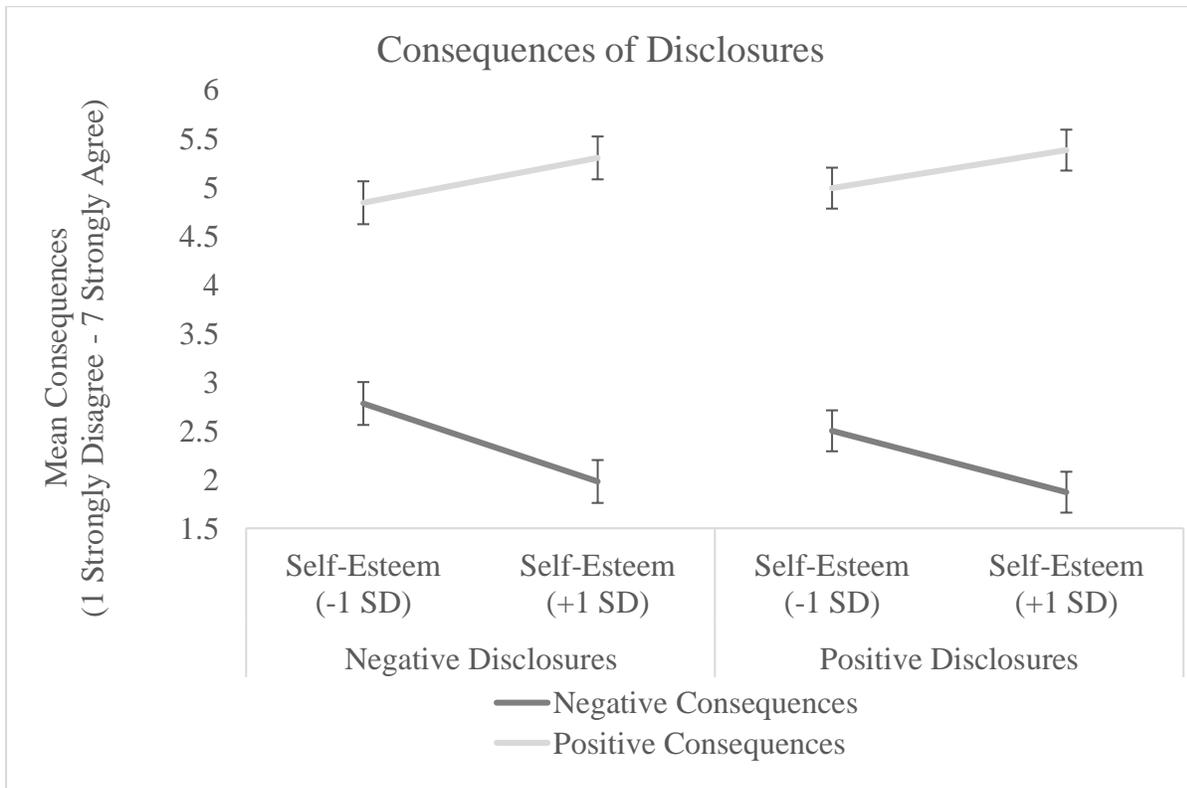
Model Parameter	Omnibus	Consequences	
	Model	Negative	Positive
	<i>b</i>	<i>b</i>	<i>b</i>
Intercept	3.71 <sup>***</sup>	2.30 <sup>***</sup>	5.12 <sup>***</sup>
Self-Esteem	-0.07 <sup>†</sup>	<b>-0.36<sup>***</sup></b>	<b>0.20<sup>**</sup></b>
Disclosure Valence	-0.02	-0.10 <sup>***</sup>	0.06 <sup>*</sup>
Consequence Valence	1.42 <sup>***</sup>	—	—
Self-Esteem × Disclosure Valence	0.01	0.04 <sup>†</sup>	-0.01
<b>Self-Esteem × Consequence Valence</b>	<b>0.28<sup>***</sup></b>	—	—
Disclosure Valence × Consequence Valence	0.08 <sup>*</sup>	—	—
Self-Esteem × Disclosure Valence × Consequence Valence	-0.03	—	—

*Note.* The omnibus model is provided first, followed by follow-up models testing simple effects (in boldface) at each level of consequence valence.

<sup>†</sup> $p < .10$ . <sup>\*</sup> $p < .05$ . <sup>\*\*</sup> $p < .01$ . <sup>\*\*\*</sup> $p < .001$ .

Figure 1

*Self-Esteem, Disclosure Valence, and Expected Consequences of Disclosure*



*Note.* Error bars show 95% CIs. Although this figure depicts information relevant to the 3-way interaction, The 3-way Self-Esteem x Consequence Valence x Disclosure Valence interaction was not significant. Rather, the 2-way interactions were significant: Self-Esteem x Consequence Valence and Disclosure Valence x Consequence Valence

***Cumulative Consequences of Disclosure***

We conducted bivariate regression analyses of each of the two cumulative consequence items (e.g., “How often does your closest friend tell you that you complain too much?”) on self-esteem. LSEs reported being told they were overly negative by a close friend more often than HSEs did,  $\beta = .30$ ,  $SE = 0.11$ ,  $p < .001$ . Similarly, LSEs also reported being told they complain too much by a close friend more often than HSEs did,  $\beta = .17$ ,  $SE = 0.10$ ,  $p = .021$ . What does “more often” translate to in terms of how often LSEs and HSEs hear such feedback? We estimated the means for each of these variables at -1 SD and +1 SD representing LSEs and

HSEs, respectively. For our “overly negative” item, our estimates were 4.29 for LSEs and 5.23 for HSEs. For our “complain too much” item, our estimates were 4.75 for LSEs and 5.23 for HSEs. The relevant scale anchors for these scores are 4 = *Once every few months* and 5 = *Once a year*. These results suggest that HSEs receive this kind of feedback less than once per year, whereas LSEs receive this kind of feedback multiple times per year.

## **Discussion**

Study 2 replicated past findings regarding disclosure frequency in that LSEs reported disclosing negativity more often than did HSEs. As expected, participants recognized that negative disclosures, compared to positive disclosures, lead to social consequences that are less favorable. Counter to our second hypothesis, however, LSEs did not underestimate the consequences of negative disclosures. Instead, LSEs expected even worse consequences in response to their negative disclosures than HSEs did. These results directly argue against our second possible explanation for the paradox, namely that LSEs do not recognize the consequences of their negative disclosures. The results did support our third hypothesis: Compared to HSEs, LSEs anticipated more unfavorable consequences to all disclosures--both negative and positive. These results heighten the paradox that we identified: Contrary to their usual tendency to avoid rejection, LSEs frequently express negativity, despite being aware of the unfavorable consequences of doing so.

### Study 3

Study 2 provided evidence that LSEs understand the consequences of negativity in close relationships and that, in fact, they expect worse reactions to their self-disclosures than HSEs do. In Study 3 we aimed to investigate the scope of these more negative expectations by comparing participants' expectations of consequences for their own disclosures to their expectations for identical disclosures made by others. In other words, are LSEs' beliefs about the consequences of disclosures driven by their tendency to self-criticize, or by LSEs believing that disclosures bring about negative reactions for all people, not just themselves?

#### **Method**

##### *Participants*

We recruited 195 undergraduate psychology students (gender, 63 male, 130 female, 2 undisclosed; age,  $M = 20.17$  years,  $SD = 2.85$ ) online through the Psychology Department's participant pool platform. Participants were not required to currently be in a romantic relationship for Study 3.

##### *Procedure*

Participants completed an online questionnaire for bonus credit in a psychology course of their choice. Participants completed the measure of perceived consequences of disclosures from Study 2 for a close friendship. Participants also completed the same measure two additional times concerning the consequences they expected someone else to face if they made the same disclosures (i.e., a typical female undergraduate named Sarah and a typical male undergraduate named John). The three applications of the consequence measure (i.e., Self, Sarah, and John) were presented in randomized order. Participants then completed the same personality measures used in Studies 1 and 2 in randomized order.

## *Measures*

**Expected Consequences of Disclosure.** Participants completed the 15-item perceived consequences of disclosure scale used in Study 2. Participants also completed two modified versions of this scale measuring participants' perceptions of the consequences a typical male (i.e., John), and a typical female (i.e., Sarah), undergraduate would face when disclosing to a close friend (e.g., "When John tells his closest friend about positive events or situations in his life, they will usually ..."), see Appendices H and I. Our primary focus in Study 3 was the self-other comparison, so we collapsed the "Sarah" and "John" discloser agents into a single "Other" discloser agent. For full results comparing the "Sarah" and "John" contexts, see Appendix J.

## **Results**

### *Expected Consequences of Disclosures*

Following the procedure used in Study 2, we created four summary scores representing positive and negative reactions to both positive and negative disclosures by averaging expected consequences for disclosures about events with those about emotions. We calculated these summary scores for each of the three discloser agents (i.e., Self, Sarah, and John), all  $as > .89$ . We then created a "Discloser" variable to assess self-other differences. We effects-coded the "Discloser" variable for the self-other comparison (i.e., values of -2, 1, 1 were assigned for Self, Sarah, and John, respectively).

We used multi-level modeling to account for the non-independent nature of the within-subjects design and to examine whether the self-esteem effects we found in Study 2 generalized to expectations about all disclosures or were limited to one's own disclosures specifically. We created a random-intercept multilevel model using the lme4 package in R (Bates et al., 2015). Discloser (i.e., self vs. other), consequence valence, and disclosure valence were nested within

participants with self-esteem as a Level 2 predictor (see Table 5). A significant 3-way Self-Esteem x Consequence Valence x Discloser interaction emerged,  $\beta = -0.07$ ,  $SE = 0.01$ ,  $p < .001$  (see Figure 2).

Table 5

*Expected Consequences by Self-Esteem, Discloser, Consequence Valence, and Disclosure Valence*

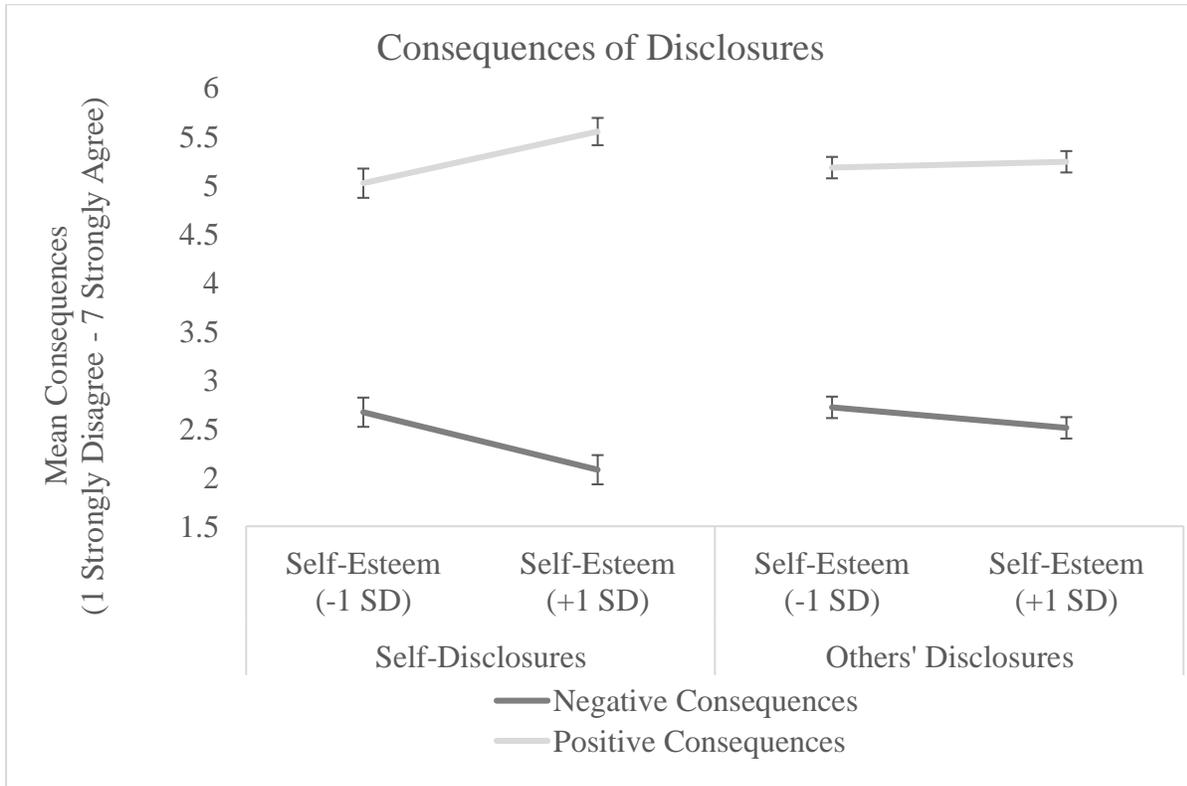
Model Parameter	<i>Omnibus Model</i> <i>b</i>	<i>Self-Disclosures</i> <i>b</i>	<i>Others' Disclosures</i> <i>b</i>
<b>Omnibus Model</b>			
Intercept	3.89***	3.84***	3.91***
Self-Esteem	-0.03	-0.01	-0.04
Consequence Valence	1.35***	1.45***	1.30***
Disclosure Valence	-0.01	-0.03	>0.01
Discloser	0.02	—	—
Self-Esteem × Consequence Valence	0.14***	<b>0.28***</b>	<b>0.07*</b>
Self-Esteem × Disclosure Valence	<0.01	0.01	>-0.01
Self-Esteem × Discloser	-0.01	—	—
Consequence Valence × Disclosure Valence	0.14***	0.13***	0.14***
Consequence Valence × Discloser	-0.05***	—	—
Disclosure Valence × Discloser	0.01	—	—
Self-Esteem × Consequence Valence × Disclosure Valence	0.04†	0.02	0.05*
Self-Esteem × Consequence Valence × Discloser	-0.07***	—	—
Self-Esteem × Disclosure Valence × Discloser	>-0.01	—	—
Consequence Valence × Disclosure Valence × Discloser	0.01	—	—
Self-Esteem × Consequence Valence × Disclosure Valence × Discloser	0.01	—	—
<b>Simple Effects</b>			
Self-Esteem (for Negative Consequences)		<b>-0.30***</b>	<b>-0.10**</b>
Self-Esteem (for Positive Consequences)		<b>0.26***</b>	<b>0.03</b>

*Note.* The omnibus model is provided first, followed by follow-up models testing simple effects (in boldface) separately for self-disclosures versus others' disclosures.

†  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Figure 2

*Self-Esteem and Expected Consequences of Disclosures for Self and Other*



*Note.* Error bars show 95% CIs.

To probe this interaction, we created two models to assess the “Self” and “Other” contexts individually. Two random-intercept multilevel models were created using the lme4 package in R (Bates et al., 2015). Consequence valence and disclosure valence were nested within participants with self-esteem included as a Level 2 predictor and consequences of self-disclosures and consequences of others’ disclosures as the dependent variables for the two models, respectively (see Table 5).

In the self-disclosures model, we replicated our findings from Study 2. A significant main effect emerged for consequence valence,  $\beta = 1.45$ ,  $SE = 0.04$ ,  $p < .001$ , such that participants reported greater expectations of positive consequences compared to negative ones. A significant

Self-Esteem x Consequence Valence interaction emerged,  $\beta = 0.28$ ,  $SE = 0.04$ ,  $p < .001$ , such that the effect of consequence valence was smaller for LSEs compared to HSEs. Specifically, LSEs reported higher expectations of negative consequences, and lower expectations of positive consequences, than did HSEs. A significant Disclosure Valence x Consequence Valence interaction also emerged,  $\beta = 0.13$ ,  $SE = 0.04$ ,  $p < .001$ , such that both LSEs and HSEs reported higher expectations of negative consequences and lower expectations of positive consequences for negative disclosures compared to positive disclosures.

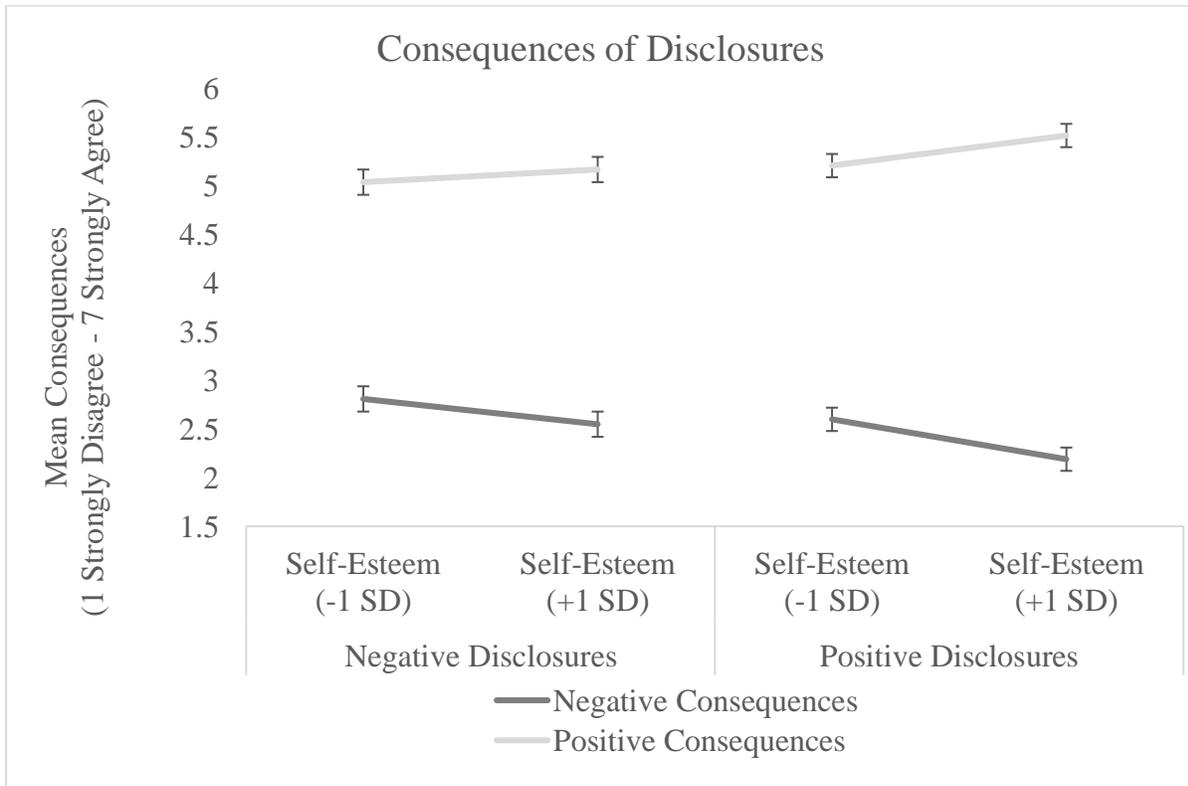
In the others' disclosures model, we obtained similar results with one notable difference. Three results were consistent with our results for the self-disclosures model. First, a significant main effect emerged for consequence valence,  $\beta = 1.29$ ,  $SE = 0.03$ ,  $p < .001$ , such that participants reported greater expectations of positive consequences compared to negative ones. Second, a significant Self-Esteem x Consequence Valence interaction emerged,  $\beta = 0.07$ ,  $SE = 0.03$ ,  $p = .011$ , such that the effect of consequence valence was smaller for LSEs compared to HSEs. Again, LSEs reported higher expectations of negative consequences, and lower expectations of positive consequences, than did HSEs. Third, a significant Disclosure Valence x Consequence Valence interaction emerged,  $\beta = 1.42$ ,  $SE = 0.03$ ,  $p < .001$ , such that participants reported higher expectations of negative consequences, and lower expectations of positive consequences, for negative disclosures compared to positive disclosures.

The notable difference between the others' disclosures model and the self-disclosures model was that a significant 3-way Self-Esteem x Consequence Valence x Disclosure Valence interaction emerged,  $\beta = 0.05$ ,  $SE = 0.03$ ,  $p = .041$ . Both the Self-Esteem x Consequence Valence and Disclosure Valence x Consequence Valence interactions were qualified by this 3-way interaction, such that the Self-Esteem x Consequence Valence interaction effect was smaller for

negative disclosures ( $\beta = 0.09$ ,  $SE = 0.03$ ,  $p = .002$ ) than for positive ones ( $\beta = 0.18$ ,  $SE = 0.03$ ,  $p < .001$ ; see Figure 3).

Figure 3

*Self-Esteem and Expected Consequences of Others' Negative and Positive Disclosures*



Note. Error bars show 95% CIs

**Discussion**

The results of Study 3 directly replicated our findings from Study 2: Both LSEs and HSEs expected others to react less favorably to their negative disclosures compared to their positive ones, and compared to HSEs, LSEs expected others to react less favorably to all their disclosures. Also, like Study 2, Study 3 suggests that LSEs expect even worse reactions to their negative disclosures than HSEs do. In addition, Study 3 examined whether expected consequences depend on whether the disclosures come from oneself or another person. As shown

by the 95% confidence intervals in Figure 2, the results of Study 3 revealed that LSEs and HSEs expect similar consequences for others, but that HSEs expect more favorable consequences for themselves, whereas LSEs expect to be treated the same as anyone else.

## General Discussion

Why do LSEs express so much negativity, if others do not like it and LSEs are especially fearful of rejection? In the current studies, we sought to investigate the most intuitive and straightforward explanation—namely, that LSEs do not understand that their negativity is problematic. We investigated LSEs’ understanding of how their rate of disclosing negativity compares to others’, and their understanding of the consequences of those disclosures. We also examined whether LSEs anticipate different consequences for their own disclosures compared to others’ disclosures.

Do LSEs understand that they are more negative than most people? Our results from Study 1 suggest that LSEs do understand that they make negative disclosures more frequently relative to the norm than HSEs do. Furthermore, when asked directly, LSEs rated themselves as being more negative than the norm. But do LSEs truly compare themselves to the norm? It is possible that in their daily lives, LSEs do not regularly consider how their negativity compares to the norm and they may not even have a clear idea of what the norm really is. It could be that when researchers ask LSEs to reflect on how they compare to the norm, their tendency towards negativity in their self-views causes them to leap to the judgment that they must be more negative than other people. They may not truly have compared themselves with others (Wood, 1996).

At the same time, a finding from Study 2 suggests that LSEs do receive information about how they compare to negativity norms. According to their reports, LSEs are told more often than HSEs by their close friends that they are “overly negative/depressing” and that they “complain too much.” These close friends are conveying that LSEs express more negativity than

is typical. On balance, then, it seems likely that LSEs do have some sense that their degree of negativity exceeds that of most other people, yet they persist in expressing negativity anyway.

Perhaps LSEs recognize that they express negativity more than most people, but they do not appreciate the consequences of doing so. Do LSEs recognize that other people do not like negativity? Contrary to our expectation, our results suggest that LSEs do understand the risks of negative self-disclosures. In fact, LSEs appear to perceive an even greater risk of unpleasant interpersonal consequences in response to negative disclosures than do HSEs. Given these results, LSEs should be especially hesitant to disclose negativity and yet they reported disclosing more negativity than did HSEs. These results effectively rule out the second possible explanation we investigated, namely that LSEs do not understand the consequences of their actions.

If LSEs do understand that they express negativity more than is typical and they do understand the risks in doing so, why do they continue to disclose so much negativity? Two explanations proposed by Wood and Forest (2016) remain to be investigated. One possible explanation is that LSEs know that others dislike their negativity but are seeking something other than liking when they make negative disclosures, such as help or support. For example, LSEs may make negative disclosures to gain reassurance (Joiner et al., 1999). A second possible explanation is that LSEs would like to inhibit their negativity but have difficulty doing so.

Another possible explanation arises from an interesting finding that emerged when we asked participants about “holding back” their negativity. In Studies 1 and 2, LSEs reported holding back negativity more often than did HSEs, which suggests that LSEs do actively limit the amount of negativity they disclose. If LSEs believe that they are sharing, say, only 50% of the negative experiences they could be sharing, they may think that their level of negativity is appropriate. In other words, LSEs may understand that expressing too much negativity is

problematic but may believe that they are already doing enough to regulate their negativity. This possibility should be examined in future research.

Do LSEs expect unfavorable reactions only for themselves, which would be in keeping with their usual worries about rejection, or do they expect that people react unfavorably to others' disclosures as well? Study 3 suggested that, compared to HSEs, LSEs expect less favorable reactions for everyone, but more intriguing was the specific pattern of results. LSEs' expected consequences for their own disclosures were not different from their expectations for others' disclosures or from HSEs' expectations for others' disclosures. Unexpectedly, it was HSEs' expectations for themselves that stood out from the rest; they expect highly favorable reactions to their own disclosures. LSEs and HSEs appear to agree on what the normative consequences of disclosures are, but HSEs expect to be treated better than others, whereas LSEs expect to be treated the same as everyone else. There can be a temptation when interpreting self-esteem effects to consider HSEs to be the baseline and to see LSEs as a divergence from the norm. Our findings challenge this view. It may be that HSEs are the ones demonstrating a biased outlook on disclosures—a bias that is self-favoring. This interpretation is consistent with Taylor and Brown's (1988) argument that it is not LSEs and depressed people whose perceptions are distorted; rather, it is HSEs and nondepressed people who harbor "positive illusions," seeing the world through rose-colored glasses, if you will.

### **Limitations and Conclusions**

Given our research questions, self-report measures were necessary rather than convenient. Our purpose was not to determine how participants actually compared to the norm or to assess how participants' friends actually respond to their self-disclosures, but to understand participants' perceptions and expectations of these. Therefore, self-report measures were the

most appropriate tools for our investigation. At the same time, self-report may have been problematic for a different part of this research: reports of self-disclosure frequency. LSEs' tendency to be excessively negative may have led them to over-report their own negative disclosures. However, prior research has corroborated LSEs' self-reported negativity with friend and roommate reports (Wood & Forest, 2016), as well as coders' ratings of LSE participants' posts on social media (Forest & Wood, 2012).

The samples recruited for these studies consisted entirely of undergraduates enrolled in psychology courses. This sample may not be representative of the larger population, due to its limited range of age and level of education. It is also possible that students in psychology courses may be especially willing to disclose intimate information about themselves to others. Either of these possibilities could limit the generalizability of the findings presented here, although it would not erase the self-esteem differences.

Bearing in mind these limitations of the current studies, we suggest that the studies offer three contributions to self-disclosure research. Firstly, the results presented here provide new evidence that LSEs do understand how negative they are. Previous research has established that LSEs report making more frequent negative disclosures than HSEs do, but the current research also suggests that they understand how their negativity compares to others'. Secondly, our results argue against the possibility that LSEs' excessive negativity is due to a misperception of risks. LSEs do recognize that negative disclosures lead to unfavorable reactions from others. Thirdly, the findings from Study 3 suggest that LSEs do not expect worse reactions to their own disclosures than to others' disclosures. Instead, LSEs expect to be treated like everyone else, whereas HSEs expect to receive better reactions than others receive.

Although we have not yet identified the solution to the paradox of LSEs' negative disclosures, we have amassed substantial evidence against two plausible explanations for LSEs' negativity. We hope that our work will pave the way for research identifying the final resolution of this paradox, as well as provide valuable new insights into LSEs' understanding of self-disclosures. The finding that LSEs do report inhibiting negativity, for example, may be useful for designing interventions to improve LSEs' social functioning.

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## Appendices

### Appendix A: Self-Disclosure Patterns

The following section will ask about how you typically communicate with your **closest friend**.

Please focus on your relationship with your **closest friend** when answering these questions.

*(Items in italics removed due to low reliability)*

#### Disclosure Frequency

1. How often do you talk to your closest friend about negative events or situations in your life (e.g., failing an exam, job interview going poorly, etc.)?
2. How often do you talk to your closest friend about positive events or situations in your life (e.g., performing well on an exam, being offered a great new job, etc.)?
3. How often do you express negative emotions (e.g., worry, sadness, anger) directly (i.e., by talking about them) to your closest friend?
4. How often do you express negative emotions (e.g., worry, sadness, anger) indirectly (i.e., through body language, facial expressions, and behavior) to your closest friend?
5. How often do you express positive emotions (e.g., joy, happiness, excitement) directly (i.e., by talking about them) to your closest friend?
6. How often do you express positive emotions (e.g., joy, happiness, excitement) indirectly (i.e., through body language, facial expressions, and behavior) to your closest friend?
7. How often do you say things that are self-critical (i.e., negative about yourself) to your closest friend?
8. *How often do you say things that are self-promoting (i.e., positive about yourself) to your closest friend?*
9. How often do you complain to your closest friend?

1	2	3	4	5	6
Never/ Very Rarely	Once a week	Several times a week	Once a day	A few times a day	Many times a day

**Likelihood of Disclosure**

10. When you experience negative events or situations in your life (e.g., failing an exam, job interview going poorly, etc.), how often do you talk about them with your closest friend?
11. When you experience positive events or situations in your life (e.g., performing well on an exam, being offered a great new job, etc.), how often do you talk about them with your closest friend?
12. When you experience negative emotions (e.g., worry, sadness, anger), how often do you express them directly (i.e., by talking about them) to your closest friend?
13. When you experience negative emotions (e.g., worry, sadness, anger), how often do you express them indirectly (i.e., through body language, facial expressions, and behavior) to your closest friend?
14. When you experience positive emotions (e.g., joy, happiness, excitement), how often do you express them directly (i.e., by talking about them) to your closest friend?
15. When you experience positive emotions (e.g., joy, happiness, excitement), how often do you express them indirectly (i.e., through body language, facial expressions, and behavior) to your closest friend?
16. *When you experience self-critical thoughts (i.e., negative thoughts about yourself), how often do you share them with your closest friend?*
17. *When you experience self-promoting thoughts (i.e., positive thoughts about yourself), how often do you share them with your closest friend?*

0-----100

Never

Always

**Holding Back Disclosures**

We are interested in how people share negative thoughts and emotions with their closest friends.

18. How often do you find yourself trying to "hold back" negative thoughts or emotions when talking to your closest friend?

19. How often do you find yourself trying to "hold back" positive thoughts or emotions when talking to your closest friend?

0-----100  
Never Constantly

**Overall Negativity/Positivity**

20. Overall, how negative vs. positive would your closest friend say you are?

1	2	3	4	5	6	7	8	9
Extremely	Quite	Moderately	Slightly	About	Slightly	Moderately	Quite	Extremely
Negative	Negative	Negative	Negative	Equal	Positive	Positive	Positive	Positive
				(Balanced)				

## Appendix B: Comparison to Self-Disclosure Norms

The following questions deal with how you think other people, in general, communicate with their closest friends. When answering the following questions, please try to think about **how your communication behaviors compare to how other people in general communicate.**

*(Items in italics removed due to low reliability)*

### Disclosure Frequency

1. Do you think you talk to your closest friend about negative events or situations in your life (e.g., failing an exam, job interview going poorly, etc.) more often, or less often than other people do to their closest friends?
2. Do you think you talk to your closest friend about positive events or situations in your life (e.g., performing well on an exam, being offered a great new job, etc.) more often, or less often than other people do to their closest friends?
3. Do you think you express negative emotions (e.g., worry, sadness, anger) directly (i.e., by talking about it) to your closest friend more often, or less often than other people do to their closest friends?
4. Do you think you express negative emotions (e.g., worry, sadness, anger) indirectly (i.e., through body language, facial expressions, and behavior) to your closest friend more often, or less often than other people do to their closest friends?
5. Do you think you express positive emotions (e.g., joy, happiness, excitement) directly (i.e., by talking about it) to your closest friend more often, or less often than other people do to their closest friends?
6. Do you think you express positive emotions (e.g., joy, happiness, excitement) indirectly (i.e., through body language, facial expressions, and behavior) to your closest friend more often, or less often than other people do to their closest friends?

7. Do you think you say things that are self-critical (i.e., negative about yourself) to your closest friend more often, or less often, than other people do to their closest friends?
8. *Do you think you say things that are self-promoting (i.e., positive about yourself) to your closest friend more often, or less often, than other people do to their closest friends?*
9. Do you think you complain to your closest friend more often, or less often than other people do to their closest friends?

1	2	3	4	5	6	7
Much Less			About the same			Much More

### **Likelihood of Disclosure**

10. When you experience negative events or situations in your life (e.g., failing an exam, job interview going poorly, etc.), do you think you are more likely, or less likely, to talk about them with your closest friend than other people are to talk to their closest friends about those things?
11. When you experience positive events or situations in your life (e.g., performing well on an exam, being offered a great new job, etc.), do you think you are more likely, or less likely, to talk about them with your closest friend than other people are to talk to their closest friends about those things?
12. When you experience negative emotions (e.g., worry, sadness, anger), do you think you are more likely, or less likely, to express them directly (i.e., by talking about them) to your closest friend than other people are to their closest friends?
13. When you experience negative emotions (e.g., worry, sadness, anger), do you think you are more likely, or less likely, to express them indirectly (i.e., through body language,

facial expressions, and behavior) to your closest friend than other people are to their closest friends?

14. When you experience positive emotions (e.g., joy, happiness, excitement), do you think you are more likely, or less likely, to express them directly (i.e., by talking about them) to your closest friend than other people are to their closest friends?

15. When you experience positive emotions (e.g., joy, happiness, excitement), do you think you are more likely, or less likely, to express them indirectly (i.e., through body language, facial expressions, and behavior) to your closest friend than other people are to their closest friends?

16. *When you experience self-critical thoughts (i.e., negative thoughts about yourself), do you think you are more likely, or less likely, to share them with your closest friend than other people are to their closest friends?*

17. *When you experience self-promoting thoughts (i.e., positive thoughts about yourself), do you think you are more likely, or less likely, to share them with your closest friend than other people are to their closest friends?*

0-----100  
Never Always

### **Holding Back Disclosures**

We are interested in how people share negative thoughts and emotions with their closest friends.

18. How often do you find yourself trying to "hold back" negative thoughts or emotions when talking to your closest friend?

19. How often do you find yourself trying to "hold back" positive thoughts or emotions when talking to your closest friend?

0-----100  
Never Constantly

**Overall Negativity/Positivity**

20. Overall, how negative vs. positive would your closest friend say you are?

1	2	3	4	5	6	7	8	9
Extremely	Quite	Moderately	Slightly	About	Slightly	Moderately	Quite	Extremely
Negative	Negative	Negative	Negative	Equal	Positive	Positive	Positive	Positive
				(Balanced)				

### Appendix C: Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Think about each statement that follows and rate the degree to which you agree or disagree with it on the following scale.

1	2	3	4	5	6	7	8	9
Very Strongly Disagree		Moderately Disagree		Neutral		Moderately Agree		Very Strongly Agree

1. I feel that I am a person of worth, at least on an equal basis with others.
2. I feel that I have a number of good qualities.
3. All in all I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times, I think I am no good at all.

**Appendix D: Big Five Aspects - Agreeableness Subscale** (DeYoung, C. G. et al., 2007)

Here are a number of characteristics that may or may not describe you. For example, do you agree that you seldom feel blue? Please fill in the number that best indicates the extent to which you agree or disagree with each statement listed below. Be as honest as possible but rely on your initial feeling and do not think too much about each item.

Use the following scale:

1 ----- 2 ----- 3 ----- 4 ----- 5  
Strongly                      Neither Agree                      Strongly  
Disagree                      nor Disagree                      Agree

“I...”

1. Am not interested in other people's problems.
2. Respect authority.
3. Feel others' emotions.
4. Believe that I am better than others.
5. Inquire about others' well-being.
6. Hate to seem pushy.
7. Can't be bothered with other's needs.
8. Take advantage of others.
9. Sympathize with others' feelings.
10. Avoid imposing my will on others.
11. Am indifferent to the feelings of others.
12. Rarely put people under pressure.
13. Take no time for others.

14. Insult people.
15. Take an interest in other people's lives.
16. Seek conflict.
17. Don't have a soft side.
18. Love a good fight.
19. Like to do things for others.
20. Am out for my own personal gain.

**Appendix E: Experiences in Close Relationships Inventory** (Brennan, K. et al., 1998)

The following statements concern how you feel in romantic relationships. I am interested in how you generally experience relationships, not just in what is happening in a current relationship.

Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

1	2	3	4	5	6	7
Disagree			Neutral/			Agree
Strongly			Mixed			Strongly

1. I prefer not to show a partner how I feel deep down.
2. I worry about being abandoned.
3. I am very comfortable being close to romantic partners.
4. I worry a lot about my relationships.
5. Just when my partner starts to get close to me I find myself pulling away.
6. I worry that romantic partners won't care about me as much as I care about them.
7. I get uncomfortable when a romantic partner wants to be very close.
8. I worry a fair amount about losing my partner.
9. I don't feel comfortable opening up to romantic partners.
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
11. I want to get close to my partner, but I keep pulling back.
12. I often want to merge completely with romantic partners, and this sometimes scares them away.
13. I am nervous when partners get too close to me.
14. I worry about being alone.
15. I feel comfortable sharing my private thoughts and feelings with my partner.

16. My desire to be very close sometimes scares people away.
17. I try to avoid getting too close to my partner.
18. I need a lot of reassurance that I am loved by my partner.
19. I find it relatively easy to get close to my partner.
20. Sometimes I feel that I force my partners to show more feeling, more commitment.
21. I find it difficult to allow myself to depend on romantic partners.
22. I do not often worry about being abandoned.
23. I prefer not to be too close to romantic partners.
24. If I can't get my partner to show interest in me, I get upset or angry.
25. I tell my partner just about everything.
26. I find that my partner(s) don't want to get as close as I would like.
27. I usually discuss my problems and concerns with my partner.
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
29. I feel comfortable depending on romantic partners.
30. I get frustrated when my partner is not around as much as I would like.
31. I don't mind asking romantic partners for comfort, advice, or help.
32. I get frustrated if romantic partners are not available when I need them.
33. It helps to turn to my romantic partner in times of need.
34. When romantic partners disapprove of me, I feel really bad about myself.
35. I turn to my partner for many things, including comfort and reassurance.
36. I resent it when my partner spends time away from me.

## Appendix F: Study 2 Partner Analyses

### Disclosures to Romantic Partner

We calculated bivariate correlations between each of the four variables involving making disclosures to one’s romantic partner (frequency of negative disclosures, likelihood of negative disclosures, frequency of positive disclosures, likelihood of positive disclosures), the two holding back disclosures items, the “Overall, how negative vs. positive would your romantic partner say you are?” item, and self-esteem. Results are presented in Table F3. LSEs reported disclosing negative events and emotions to their partners more often than did HSEs. LSEs also reported disclosing positive events and emotions to their partners less often and being less likely to disclose about a given positive experience to their partners, compared to HSEs. LSEs further reported holding back positive disclosures, but not negative ones, from their partners more often than did HSEs. No significant effect of self-esteem emerged for likelihood of making negative disclosures. Finally, compared to HSEs, LSEs reported that their romantic partners see them as more negative.

Table F1

*Bivariate Correlations Between Seven Disclosure Variables and Self-Esteem (Study 2 - Partner)*

	1	2	3	4	5	6	7
1. Self-esteem							
2. Frequency of Negativity	-.32***						
3. Likelihood of Negativity	-.02	.52***					
4. Frequency of Positivity	.18*	.39***	.37***				
5. Likelihood of Positivity	.19**	.20**	.64***	.60***			
6. Holding back Negativity	-.11	-.07	.25***	-.34***	-.41***		
7. Holding back Positivity	-.34***	.02	-.31***	-.15*	-.15*	.38***	
8. Negativity vs. Positivity	.44***	-.33***	-.04	.26***	.27***	.01	-.04

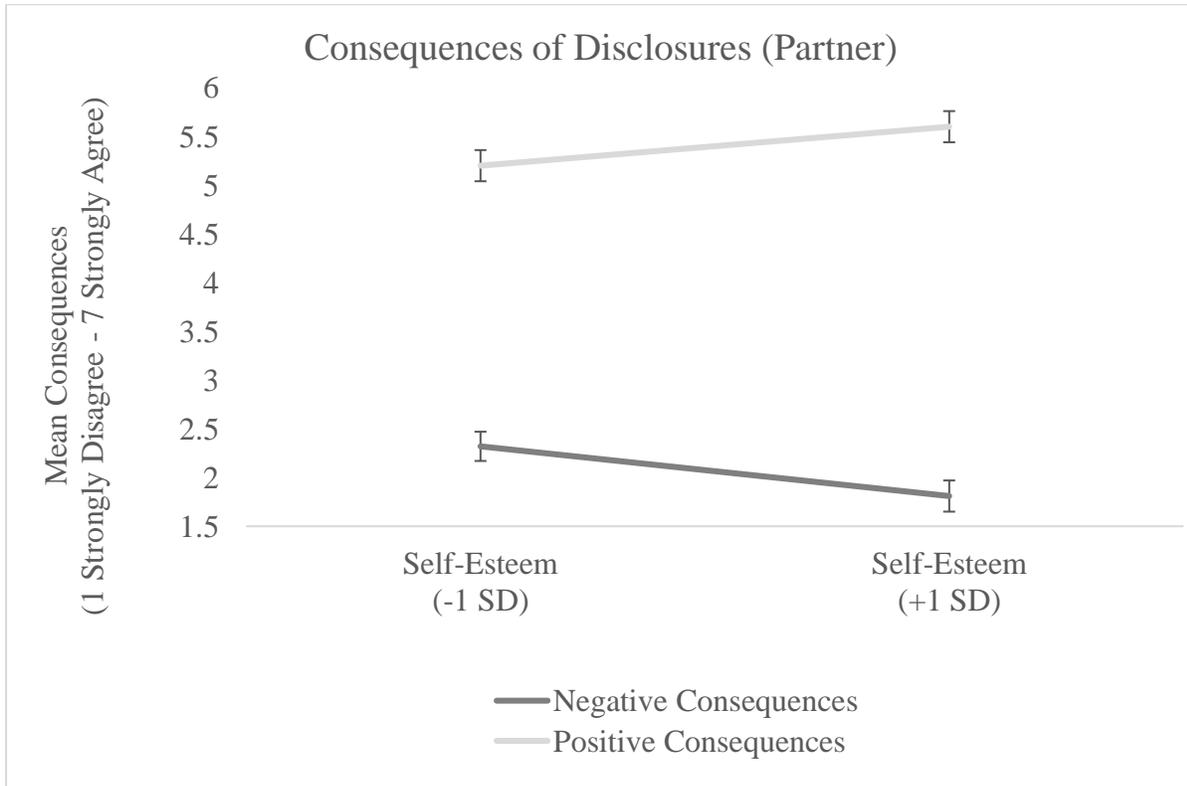
†p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

## Expected Consequences of Disclosures

To account for the non-independence in the data arising from the within-subjects design, we created a random-intercept multilevel model using the lme4 package in R (Bates et al., 2015). Consequence valence and disclosure valence were nested within participants with self-esteem as a Level 2 predictor and mean expected consequences as the dependent variable. A significant main effect emerged for consequence valence,  $\beta = 1.67$ ,  $SE = 0.04$ ,  $p < .001$ , such that participants reported greater expectations of positive consequences compared to negative ones. A significant Self-Esteem x Consequence Valence interaction emerged,  $\beta = 0.23$ ,  $SE = 0.04$ ,  $p < .001$ , such that the effect of consequence valence was smaller for LSEs compared to HSEs (see Figure F1). Specifically, LSEs reported higher expectations of negative consequences, and lower expectations of positive consequences, than did HSEs. A significant Disclosure Valence x Consequence Valence interaction also emerged,  $\beta = 0.19$ ,  $SE = 0.04$ ,  $p < .001$ , such that the effect of consequence valence (i.e., that more positive consequences were expected than negative ones) was smaller for negative disclosures than for positive disclosures.

Figure F1

*Self-Esteem, Disclosure Valence, and Expected Consequences of Disclosure (Partner)*



*Note.* Error bars show 95% CIs.

**Cumulative Consequences of Disclosure**

We conducted bivariate regression analyses of each of the two cumulative consequence items (e.g., “How often does your romantic partner tell you that you complain too much?”) on self-esteem. LSEs reported being told they were overly negative by their partner more often than HSEs did,  $\beta = .22$ ,  $SE = 0.11$ ,  $p = .003$ . Similarly, LSEs also reported being told they complain too much by their partner more often than HSEs did,  $\beta = .35$ ,  $SE = 0.12$ ,  $p < .001$ . We estimated the means for each of these variables at -1 SD and +1 SD representing LSEs and HSEs, respectively. For our “overly negative” item, our estimates were 4.06 for LSEs and 5.22 for HSEs. For our “complain too much” item, our estimates were 4.48 for LSEs and 5.16 for HSEs.

The relevant scale anchors for these scores are 4 = *Once every few months* and 5 = *Once a year*. These results suggest that HSEs receive this kind of feedback less than once per year, whereas LSEs receive this kind of feedback multiple times per year.

### **Comparison to Friend Context**

We observed three notable differences between the close friend context and the romantic partnership context with regards to the self-disclosure scale. First, LSEs reported making fewer positive disclosures than HSEs in the romantic partnership context but not in the close friendship context. Second, LSEs reported being less willing than HSEs to disclose about a given positive experience to their romantic partners but not to their closest friends. Third, and finally, in the romantic partnership context, LSEs did not report holding back negativity more often than HSEs, unlike in the close friendship context.

We observed a consistent pattern of results across the close friendship and romantic partnership contexts for our consequences of disclosures analyses.

## **Appendix G: Expected Consequences of Disclosure**

The following section will ask about your interactions with your **closest friend**.

Please focus on your relationship with your **closest friend** when answering these questions.

### **Disclosure Stems**

1. When I share positive thoughts or emotions with my closest friend, he/she will usually ...
2. When I tell my closest friend about positive events or situations in my life, he/she will usually ...
3. When I share negative thoughts or emotions with my closest friend, he/she will usually ...
4. When I tell my closest friend about negative events or situations in my life, he/she will usually ...

### **Consequence Response Items**

1. Be supportive
2. Be interested
3. Like me more because of it
4. Care about me more because of it
5. Pull away from me because of it
6. Resent me for it
7. Like me a little less because of it
8. Draw closer to me because of it
9. Accept me for it
10. Understand me more because of it
11. Get sick of it
12. Get tired of hearing it

13. Stop caring about it

14. Look down on me

15. Make me feel lessened

1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly

**Cumulative Consequence Items**

1. How often does your closest friend tell you that you are overly negative/depressing?
2. How often does your closest friend tell you that you complain too much?

1	2	3	4	5	6
More than once a week	Once a week	Once a month	Once every few months	Once a year	I've never been told that

## **Appendix H: Expected Consequences of Disclosure (John)**

The following section involves a typical male undergrad named John. These questions will ask about what you think would happen in an interaction between John and his closest friend.

Please think about **John and his closest friend** when answering these questions.

### **Disclosure Stems**

1. When John shares positive thoughts or emotions with his closest friend, they will usually ...
2. When John tells his closest friend about positive events or situations in his life, they will usually ...
3. When John shares negative thoughts or emotions with his closest friend, they will usually ...
4. When John tells his closest friend about negative events or situations in his life, they will usually ...

### **Consequence Response Items**

1. Be supportive
2. Be interested
3. Like him more because of it
4. Care about him more because of it
5. Pull away from him because of it
6. Resent him for it
7. Like him a little less because of it
8. Draw closer to him because of it
9. Accept him for it

10. Understand him more because of it

11. Get sick of it

12. Get tired of hearing it

13. Stop caring about it

14. Look down on him

15. Make him feel lessened

1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly

### **Cumulative Consequence Items**

1. How often do you think John's closest friend tells him that he is overly negative/depressing?

2. How often do you think John's closest friend tells him that he complains too much?

1	2	3	4	5	6
More than once a week	Once a week	Once a month	Once every few months	Once a year	He has never been told that

## **Appendix I: Expected Consequences of Disclosure (Sarah)**

The following section involves a typical female undergrad named Sarah. These questions will ask about what you think would happen in a interaction between Sarah and her closest friend.

Please think about **Sarah and her closest friend** when answering these questions.

### **Disclosure Stems**

3. When Sarah shares positive thoughts or emotions with her closest friend, they will usually ...
4. When Sarah tells her closest friend about positive events or situations in her life, they will usually ...
5. When Sarah shares negative thoughts or emotions with her closest friend, they will usually ...
6. When Sarah tells her closest friend about negative events or situations in her life, they will usually ...

### **Consequence Response Items**

7. Be supportive
8. Be interested
9. Like her more because of it
10. Care about her more because of it
11. Pull away from her because of it
12. Resent her for it
13. Like her a little less because of it
14. Draw closer to her because of it
15. Accept her for it

16. Understand her more because of it

17. Get sick of it

18. Get tired of hearing it

19. Stop caring about it

20. Look down on her

21. Make her feel lessened

1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly

**Cumulative Consequence Items**

22. How often do you think Sarah's closest friend tells her that she is overly negative/depressing?

23. How often do you think Sarah's closest friend tells her that she complains too much?

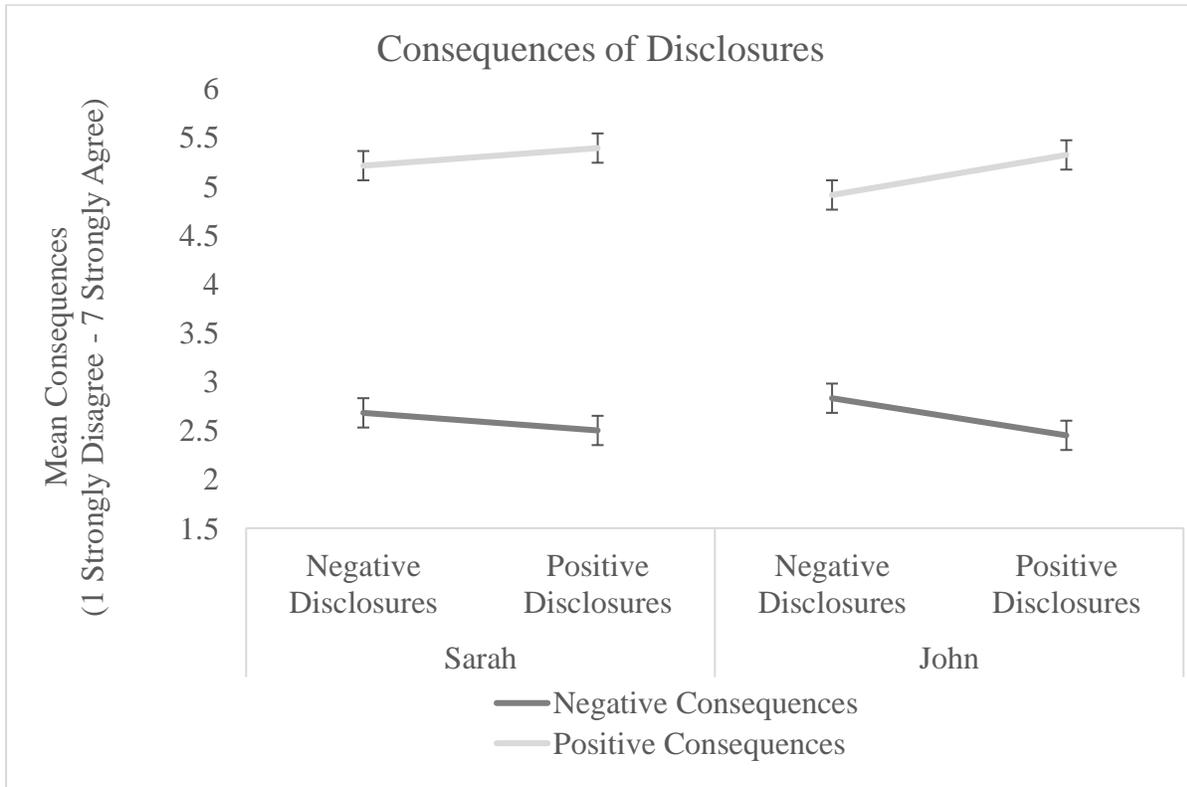
1	2	3	4	5	6
More than once a week	Once a week	Once a month	Once every few months	Once a year	I've never been told that

## Appendix J: Study 3 Sarah-John Analyses

We used multi-level modeling to account for the non-independent nature of the within-subjects design and to examine whether the Sarah and John contexts differed. We created a random-intercept multilevel model using the lme4 package in R (Bates et al., 2015). Discloser (i.e., Sarah vs. John), consequence valence, and disclosure valence were nested within participants with self-esteem as a Level 2 predictor. A significant 3-way Disclosure Valence x Consequence Valence x Discloser interaction emerged,  $\beta = 0.05$ ,  $SE = 0.03$ ,  $p = .038$  (see Figure J1). A marginal Self-Esteem x Consequence Valence x Discloser interaction also emerged,  $\beta = -0.05$ ,  $SE = 0.03$ ,  $p = .063$  (see Figure J2).

Figure J1

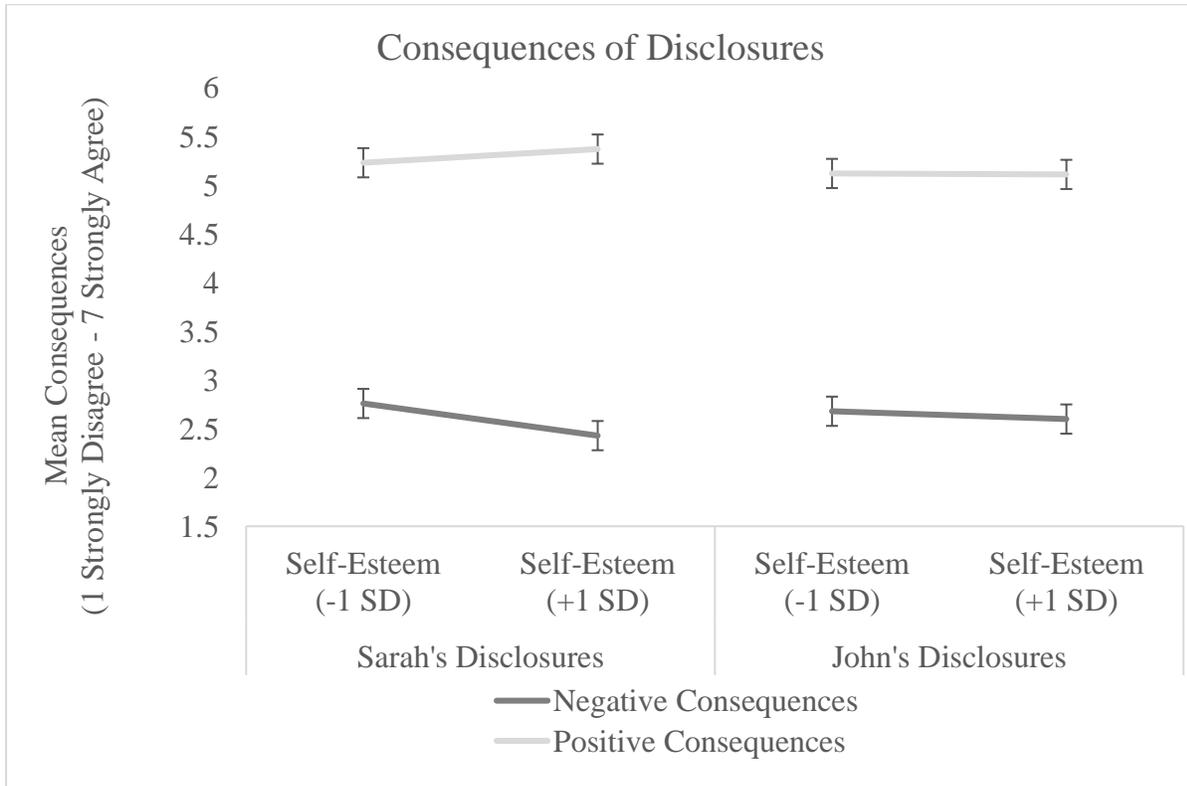
*Expected Consequences of Negative and Positive Disclosures for Sarah and John*



Note. Error bars show 95% CIs.

Figure J2

*Self-Esteem and Expected Consequences of Disclosures (Sarah vs. John)*



Note. Error bars show 95% CIs

To probe these interactions, we created two models to assess the Sarah and John contexts individually. Two random-intercept multilevel models were created using the lme4 package in R (Bates et al., 2015). Consequence valence and disclosure valence were nested within participants with self-esteem included as a Level 2 predictor and consequences of Sarah’s disclosures and consequences of John’s disclosures as the dependent variables for the two models, respectively.

In the Sarah’s disclosures model, we found similar effects to those for self-disclosures. A significant main effect emerged for consequence valence,  $\beta = 1.35$ ,  $SE = 0.04$ ,  $p < .001$ , such that participants reported greater expectations of positive consequences compared to negative ones. A significant Self-Esteem x Consequence Valence interaction emerged,  $\beta = 0.11$ ,  $SE = 0.04$ ,  $p =$

.002, such that the effect of consequence valence was smaller for LSEs compared to HSEs. Specifically, LSEs reported higher expectations of negative consequences, and lower expectations of positive consequences, than did HSEs. A significant Disclosure Valence x Consequence Valence interaction also emerged,  $\beta = 0.09$ ,  $SE = 0.04$ ,  $p = .019$ , such that higher expectations of negative consequences, and lower expectations of positive consequences, were reported for negative disclosures compared to positive disclosures.

In the John's disclosures model, we found an intriguing divergence from our typical pattern of results. Similar to the Sarah's disclosures model, a significant main effect emerged for consequence valence,  $\beta = 1.24$ ,  $SE = 0.04$ ,  $p < .001$ , such that participants reported greater expectations of positive consequences compared to negative ones. Also similar to Sarah's disclosures model, the effect of consequence valence was qualified by a significant Disclosure x Consequence Valence interaction,  $\beta = 0.20$ ,  $SE = 0.04$ ,  $p < .001$ , such that the effect of consequence valence was smaller for negative disclosures compared to positive ones. Unlike the Sarah's disclosures model, however, no significant Self-Esteem x Consequence Valence interaction emerged,  $p = .621$ . This is particularly striking because the primary focus of this study was to determine whether this specific interaction effect extended to others' disclosures. We must be careful not to draw too strong of a conclusion from this lack of an interaction effect, however, because the 3-way Self-Esteem x Consequence Valence x Discloser interaction was only marginal.