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The Interaction Effects of Aspects of the Self on Mental Health in College Students

AN HONORS THESIS

College of St. Benedict/St. John's University

In Partial Fulfillment

of the Requirements for Distinction

in the Department of Psychology

by

Elizabeth E. Peichel

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The Interaction Effects of Aspects of the Self on Mental Health in College Students

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Abstract

The purpose of this study was to examine the interaction effect of the personality traits of shyness and social support and identity style on the mental health issues of rumination, anxiety, and identity distress. I distributed surveys to a convenience sample of 188 college-age students at two single-sex, rural, Catholic schools. Although there were no three-way interaction effects of the variables as they relate to rumination, anxiety, and identity distress as hypothesized, there was a two-way interaction effect of shyness and social support of friends as they relate to rumination. Low shy individuals with high social support demonstrate lower rumination than low shy individuals with low social support, but social support does not matter for high shy individuals. It would seem, then, that social support could potentially make a difference in rumination about social situations, but only if there is no amount of shyness or anxiety about the situation to begin with.

support and identity style.

The Interaction Effects of Aspects of the Self on Mental Health in College Students

Mental health issues are not uncommon among college students as about a quarter of
young adults between the ages of 18 and 24 have a diagnosable mental illness (Mental Health
America of Illinois, 2007). Certain personality traits—such as shyness, attribution style,
perfectionism, or behavior problems—are associated with such mental illnesses as depression,
social anxiety, or identity distress (Bruch & Belkin, 2001; Hernandez, Montgomery, & Kurtines,
2006; Nepon, Flett, Hewitt, & Molnar, 2011). Little is known about the relationship that one's
identity processing style, in tandem with shyness and social support, has with certain mental
health issues: rumination, anxiety, and identity distress. We do, however, know that research has
indicated relationships between shyness and social support, shyness and identity style, and social

The purpose of the current study was to examine the interaction effect of the personality and identity traits of shyness, social support, and identity style on the mental health issues of rumination, anxiety, and identity distress. I investigated these relationships in an effort to determine if a particular combination of personality and identity factors is more highly related to the negative mental health issues of rumination, anxiety, and identity distress.

Berzonsky (2004) argues that there are particular social—cognitive processes that individuals use in order to "engage in or manage to avoid the process of constructing or revising a sense of identity" (p. 304). His model is based on a constructivist view of identity as he states that identity is a process as well as a structure. There are three ways in which people carry out the process of building their sense of identity, which he calls identity processing orientations: informational, normative, and diffuse—avoidant. Individuals with an informational processing style "are self—reflective and they actively seek out and evaluate self—relevant information"

(Berzonsky, 2004, p. 305). These individuals are willing to examine dissonant feedback with regard to their sense of self and revise parts of their identity if needed. Individuals with a normative processing style "conform to expectations, values, and prescriptions appropriated from significant others" (Berzonsky, 2004, p. 306). These individuals do not handle dissonant or ambiguous feedback well with regard to their sense of self and do their best to protect their existing self–view. Individuals with a diffuse–avoidant processing orientation are characterized by "a reluctance to confront and face up to decisional situations, personal problems, and identity conflicts" (Berzonsky, 2004, p. 306). These individuals have an inconsistent or empty self–theory as they do not make stable or long–term revisions to their sense of self because they demonstrate a tendency towards behavioral conformity or verbal compliance (Berzonsky, 2004).

Since Berzonsky's model seems to revolve around the idea that social interactions are important in constructing one's identity, it should follow that it is related to shyness and social support in some way as these two concepts are socially—oriented. Very little research has been done on the relationships of identity processing styles with shyness or social anxiety. Research has been done, however, on the relationships of identity processing styles with social support. Social support is positively correlated with informational processing style and normative processing style (normative more so than informational), but negatively associated with diffuse—avoidant processing style (Bosch, Segrin, & Curran, 2012). This makes sense in that diffuse—avoidant individuals put off making decisions regarding their sense of self, so they may put off making decisions within social interactions. Evidence also suggests that normative and informational identity styles are more strongly associated with seeking social support as a means of coping (informational more so than normative) (Beaumont & Seaton, 2011). Doumen, Smits, Luckyx, Duriez, Vanhalst, Verschueren, and Goossens (2012) found that the informational

processing orientation is related to friendship quality. So, while normative individuals may be more likely to have social support, informational individuals demonstrate more satisfaction with the social support they do have. This would seem to suggest that informational and normative individuals with high social support may experience fewer negative feelings or thoughts than those with low social support.

There is also clear evidence to indicate a relationship between shyness and social support as research found negative correlations between shyness and social support from peers, parents, and teachers (Paulsen, Bru, & Murberg, 2006). There is a negative correlation between shyness and social support, and each of these were associated (positively for shyness and negatively for social support) with depression symptoms in adolescents (Merberg, 2009). This research and the research regarding the relationship between social support and identity styles seem to imply that there might be a relationship between identity styles, shyness, and social support. The social nature of these three constructs suggest that they might interact in interesting ways on various aspects of mental health: rumination, anxiety, and identity distress, especially as related to social situations.

Rumination

Research clearly indicates a relationship between rumination and depression (Nepon et al., 2011). While depression may be a growing mental health issue for college students, it is important to look at rumination because rumination maintains negative self–perceptions that tend to underlie depression (Takano & Tanno, 2009). Determining the relationship of various aspects of the self with rumination can help to gain a better perspective of the mental processes that underlie the emotional experience of depression and potentially gain a better understanding of how to combat it. The emotional experiences of shyness and social support in social situations

have been related to rumination in previous literature. This, combined with research indicating a relationship of rumination with the way individuals construct their sense of self, demonstrates the importance of analyzing the interaction of these aspects of the self on rumination as previous literature has not examined this combined interaction.

Many studies demonstrate the relationship between social anxiety—the extreme form of shyness—and rumination. Research found that social anxiety in individuals is correlated with a form of rumination referred to as post—event processing. Post—event processing occurs significantly more in those with high social anxiety, compared with those having low social anxiety (Rachman, Grüter—Andrew, & Shafran, 2000). Following a social event in particular, those with social anxiety report ruminating to a greater extent and experience more negative self—perceptions than those without social anxiety (Makkar & Grisham, 2011; Mellings & Alden, 2000). It is important to determine if these patterns are still evident between shyness and rumination. Although shyness is a lesser form of social anxiety, it is beneficial to examine due to the fact that shyness could also negatively impact the way individuals experience rumination after a negative encounter in a social situation. This could be due to the fact that shyness may negatively impact the amount of social support they perceive.

If high social support is related to low rumination, although high shy individuals may still experience more rumination than low shy individuals, high social support may help individuals experience less rumination. Putterman, Delongis, and Pomaki (2010) found that more social support is negatively associated with rumination. Flynn, Kecmanovic, and Alloy (2010) also found that being discontent with one's social support is associated with depressive rumination. Although no previous literature has examined the interaction of shyness and social support on rumination, the research seems indicate there is a relationship between them. It should also

follow that if shyness and social support are related to rumination, identity styles should be related as well since the experience of shyness and the perception of social support may impact the way they view themselves and construct their sense of who they are.

If shyness and social support relate to the way individuals construct their sense of who they are, it might also relate to certain individuals ruminating to a greater extent about if they are acting in accordance with the view they hold of themselves. Berzonsky and Luyckx (2008) examined the relationship between identity processing styles and rumination. They found that both diffuse–avoidant processing orientations and normative processing orientations are positively correlated with rumination. Since previous research found existing relationships between identity styles with social support and social anxiety, in addition to the relationship with rumination, it should also follow that identity styles, social support, and shyness demonstrate an interesting interaction effect on rumination.

Previous research leads to fairly clear indications of the potential relationship between shyness, social support, and identity style on rumination. For highly shy, high social support individuals, it would seem that diffuse—avoidant individuals would experience the most rumination, followed by normative individuals, followed by informational individuals. This is because more social support could potentially mean more need to own up to decisional situations or personal problems, which may in turn be related to greater rumination. For highly shy, low social support individuals, it would seem that normative individuals would experience the greatest amount of rumination, followed by diffuse—avoidant individuals, followed by informational individuals. This is because normative individuals base their sense of self on the significant others around them. If they do not feel they have support, they might ruminate to a greater extent about any dissonant feedback they come across regarding their identity. For low

shy, high social support individuals, it would seem that normative and diffuse—avoidant individuals would both experience more rumination than informational individuals. This may be due to the fact that diffuse—avoidant and normative individuals tend to ruminate to a greater extent than informational individuals, so this pattern should emerge when no shyness and no issues with social support are involved. Finally, for low shy, low social support individuals, it would seem that normative individuals would experience the most rumination, followed by diffuse—avoidant individuals, followed by informational individuals. This, again, is due to the fact that normative individuals may need social support the most in order to prevent from ruminating about their identity. This relationship seems evident, and the next step would be to look into anxiety, as anxiety has a tendency to be a co—morbid disorder with depression.

Anxiety

College students today seem to experience a great deal of anxiety: anxiety about the future, anxiety about friendships or romantic relationships, anxiety about finances, anxiety about classes, etc. The literature suggests a distinction between state anxiety and trait anxiety (Endler & Kocovski, 2001; Spielberger & Sydeman, 1994). State anxiety is the momentary response to stress, while trait anxiety is the tendency to consistently be in an anxious state. Research has also distinguished between the cognitive and somatic dimensions of anxiety (Ree, French, MacLeod, & Locke, 2008). The somatic dimension "includes self—reported symptoms such as hyperventilation, sweating, trembling, and palpitations" as well as muscle tension and stiffness, while the cognitive dimension consists of symptoms more associated with "thought processes, including worry, intrusive thoughts, and lack of concentration (Ree et al., 2008, p. 314). It is important to understand all these distinctions in order to gain a full perspective on the experience one has of anxiety. Many scales do not take this full perspective into account, and may be

lacking information that only qualitative data could make up for. Shyness, social support, and identity styles may interact differently in their relationship with anxiety as a whole, but previous research has not examined this full relationship.

The relationship between anxiety and shyness is somewhat unclear when examining the literature. Previous research indicated a significant positive relationship between anxiety and shyness in childhood (Iriving & Irving, 1994; Traub, 1983). Interestingly, more recent literature suggests that shyness in childhood is not necessarily related to anxiety in adolescence or adulthood. Cox, MacPherson, and Enns (2005) identify that individuals who report, in retrospect, excessive shyness in childhood do not meet criteria for any anxiety disorders. Mounts, Valentiner, Anderson, and Boswell (2006) found no significant relationship in college students between anxiety and shyness overall. They did, however, find a significant interaction between shyness and sociability on anxiety for African–American adolescents but not for White adolescents. They also found high levels of shyness to be related to high levels of loneliness and high levels of loneliness to be related to high levels of shyness. This might suggest that shyness and anxiety are not related unless an individual also has little social support, but it is difficult to know what to make of these ambiguous results.

Researchers seem to agree that social support is beneficial for the quality of life.

However, some research suggests that while social support helps to protect somewhat against the negative effects of anxiety, it does not help to entirely buffer against it (Panayiotou & Karekla, 2013). This evidence may suggest that a shy individual with low social support may experience anxiety to a greater degree. This would be due to the fact that shy individuals have difficulty in social situations. They may become anxious about what potentially went wrong in a social situation or anxious about how other people perceive them. If they have social support, some of

this anxiety may be lessened because the shy individuals have people to fall back on. However, without that social support to help alleviate some of the stress caused by anxiety, a shy individual may not have another outlet to protect against its negative effects. The experience of anxiety may also be related to how an individual processes information regarding the self.

There has not been much research regarding the relationship between anxiety and identity processing styles. The informational processing style has been found to be associated with defense mechanisms to manage anxiety (Berzonsky & Kinney, 2008). Given that informational individuals also seem to have greater satisfaction with their friendship quality and demonstrate a tendency to seek social support as a defense, they may be more protected against the negative effects of anxiety.

Since there is not a great deal of information regarding identity styles and anxiety, it is difficult to hypothesize fully based on the research about which individuals would experience the greatest amount of anxiety. However, I did hypothesize that informational individuals will experience the least amount of anxiety overall. I also hypothesized that for high shy individuals, those with low social support will experience more anxiety than those with high social support since social support has been found to help protect against the negative effects of anxiety. Based on the relationship between rumination and anxiety, there are some speculations that I can make. I speculated that for high shy, high social support individuals, similar to rumination, diffuse—avoidant individual would experience the most anxiety followed by normative individuals and then informational individuals. I also speculated that the pattern would be the same as rumination for high shy, low social support individuals as well: normative individuals experience the most anxiety, then diffuse—avoidant, then informational.

For low shy individuals, I speculated that diffuse–avoidant individuals would experience the most anxiety followed by normative individuals and followed by informational individuals regardless of social support level. However, I did speculate that diffuse–avoidant individuals with high social support will experience more anxiety than those with low social support. This is due to the fact that with more social support and less shyness, there are potentially more people for diffuse–avoidant individuals to deal with and potentially more identity related decisions they need to deal with. For informational individuals who have low shyness, social support level may not matter because if they have low shyness, they are still able to interact well with others in social situations with minimal anxiety even if they do not have very much social support. Finally, since normative individuals base their identity off those closest to them, if normative individuals have low shyness, but low social support, they will experience more anxiety than if they have high social support.

Identity Distress

If relationships exist among shyness, social support, and identity styles on rumination and anxiety, the next step would be to look at identity distress. This is due to the fact that Hernandez, Montgomery, and Kurtines (2006) found that identity distress issues and global identity distress is positively correlated with anxious and depressed related symptoms. So, it would be interesting to determine if similar patterns arise or if there is something about one's identity that is distinct from other types of mental illnesses. The Identity Distress Survey measures how distressed, worried, or upset individuals are by identity issues in various aspects of life that are unresolved. The Identity Distress Scale was developed based on the DSM–III–R criteria for Identity Disorder, which "encompassed uncertainty about a variety of issues relating to identity, including long–term goals, career choices, friendship patterns, sexual orientations and behavior,

religious identification, moral value systems, and group loyalties" (Berman, Montgomery, & Kurtines, 2004, pp. 1–2). The research regarding identity distress is fairly limited to date regarding its relationships with shyness, social support, and identity styles.

No research has been done on the relationship of shyness to identity distress. It would seem, though, that since identity distress is positively correlated with anxiety and depressed related symptoms, it may also be positively correlated with shyness. Hernandez et al. (2006) did find identity distress issues to be related to peer problems and social withdrawal. Shy individuals tend to be socially withdrawn due to the anxiety they experience in social situations. Gfellner and Cordoba (2011) found a significant relationship between identity distress and social support from friends such that more identity distress is related to less social support from friends. So, high shyness and low social support may be related to greater identity distress just as it is potentially related to rumination and anxiety. Since the patterns seem to follow for shyness and social support, it should also follow that the way individuals construct their sense of self is related to the amount of distress they feel in identity related issues.

Seeing as diffuse—avoidant and normative individuals tend to experience more anxiety and rumination informational individuals, it would seem that they would experience more identity distress than informational individuals as well. However, Berman et al. (2004), in their validation of their scale, found some interesting results. They found that individuals with an informational processing orientation experienced the greatest amount of identity disorder, followed by those with a diffuse—avoidant processing orientation, followed by those with a normative processing orientation. They also found that individuals with a normative processing orientation experienced less global identity distress than both individuals with diffuse—avoidant and informational processing orientations. Berman et al. (2004) suggests that this is due to the

idea that "identity development follows a rule of 'no pain, no gain" in that individuals with normative or diffuse—avoidant styles may be more adept in preventing the effects or feelings of identity distress. They suggest that these individuals simply may not develop as full of a sense of identity as those with an informational style would.

Although informational individuals may not experience as much rumination or anxiety as normative or diffuse—avoidant individuals, they may experience the greatest amount of identity distress. This may be due to the fact that while informational individuals are seeking out information to piece together who they are, they are going to experience some distress with not knowing exactly who they are. However, they may not ruminate on or feel anxious about this due to the fact that it is simply the way they deal with information regarding the self as they handle dissonant feedback well.

I hypothesized that individuals with an informational style will experience more identity distress than those with a normative or diffuse—avoidant identity styles. It would also seem that low shy, high social support, normative individuals would experience the least amount of identity distress due to the fact that this pattern was found in previous research. This should hold true for those that do not seem to have other problems that they may be dealing with. However, since there is not a lot about the relationships between shyness, social support, and identity styles on identity distress, this will be more of an exploratory analysis to determine what patterns will emerge. This is especially true since although identity distress is positively correlated with anxiety and depressed symptoms, the patterns of relationship between identity style and identity distress are different than those between identity style with rumination or with anxiety. It is difficult to determine how shyness and social support might impact this differing relationship.

Negative Social Outcome Thoughts and Feelings Qualitative Section

While quantitative data can reveal much about an individual's experiences, it does not present the researcher with the entire story. There are thoughts and emotions running through the mind of each individual, especially when one is running or feeling anxious, that cannot be determined by simply answering a question about the level of agreement with a statement. Only qualitative data can identify some of the specific thoughts a participant experiences with regard to runnination, anxiety, or identity distress. When participants are provided with the opportunity to write down the thoughts they would experience after a particular event, they offer the researcher a more holistic view of their experience.

The current study sought to identify the specific thoughts going through one's mind with regard to rumination, anxiety, and identity distress. Specifically, I wanted to examine the types of thoughts one experiences the most often in the context of a party. The social nature of a party will relate to ones shyness level, social support, and identity style. One who is high in shyness, low in social support, and diffuse—avoidant may articulate more negative thoughts, emotions, or feelings about the self when looking at the situation from the viewpoint of the person in the scenario who does not succeed in a social situation. In addition, these thoughts, emotions, and feelings about the self may differ if the negative outcome of an event speaks to the social self versus a negative outcome of an event that does not speak to the social self. I hoped to determine the types of thoughts one experiences with particular combinations of shyness, social support, and identity styles as well as which of the thoughts associated with rumination, anxiety, or identity distress that participants feel bothered by the most.

Present Study

Although shyness, social support, and identity styles are able to tell us something about how people experience certain emotions or distress, they do not tell us everything. There are aspects missing in each scale that keep us from knowing the whole picture. For instance, we know that people ruminate, but we do not necessarily know what they ruminate about. We also know that people feel anxious, but we do not know what about. Finally, we know people experience distress with regard to their identity, but we do not necessarily know how. The present study sought to examine the patterns of interaction effects of shyness, social support, and identity processing styles on all aspects of rumination, anxiety and identity distress: the experience, the how, and the what about. This is important to examine as previous literature has not studied these relationships although there seem to be clear patterns that may emerge.

The main purpose of this study was to examine the way shyness, social support, and identity styles relate to mental health issues in order to learn how to even better approach treating them. Individuals with normative and diffuse-avoidant identity styles may experience more negative effects of mental health, if they are shy or have low social support. If this is true, it is important to address the root of an individual's personality and sense of who they are when treating mental health. If the variables interact in the way I predicted, it would be important to pay closer attention to the personality and identity factors examined in this study when determining how to best help individuals experiencing depression, anxiety, or identity distress.

Hypotheses

Hypothesis #1: Rumination

 for high shy, high social support: diffuse—avoidant experience the greatest amount of rumination, then normative, then informational

- for high shy, low social support: normative, then diffuse–avoidant, then informational
- for low shy, high social support: normative and diffuse–avoidant, then informational
- for low shy, low social support: normative, then diffuse–avoidant, then informational

Hypothesis #2: Anxiety

- for high shy, high social support: diffuse–avoidant experience the greatest amount of anxiety, then normative, then informational
- for high shy, low social support: normative, then diffuse–avoidant, then informational
- for low shy, diffuse—avoidant: those with high social support will experience more anxiety than those with low social support
- for low shy, normative: those with low social support will experience more anxiety than those with high social support
- for low shy, informational: social support does not impact the levels of anxiety one experiences

Hypothesis #3: Identity Distress

- for low shy, high social support: normative will experience the least amount of identity distress
- informational individuals will experience the greatest amount of identity distress overall
- exploratory analyses will be performed to determine other patterns that may emerge with regard to identity distress

Method

Participants

The participants of this study consisted of undergraduate students of traditional college age (N=188) from the College of St. Benedict/St. John's University. College of St. Benedict/St.

John's University is a private, Catholic school consisting of two single—sex and liberal arts campuses with a combined curriculum in which almost all classes are co—educational. So, in this way, the two campuses operate as one single institution. The campuses are located in a rural area. The sample, chosen through convenience sampling, consisted of 103 female participants and 86 male participants.

Measures

Shyness. The 9-item Shyness Scale (Cheek & Buss, 1981) identifies the level of social inhibition that individuals display. Examples of items on this scale are, "I feel tense when I'm with people I don't know well" and "I feel inhibited in social situations." Participants responded on a five-point Likert-type scale from strongly disagree to strongly agree. Higher scores indicate a greater degree of shyness. I performed a median split into shy and non-shy groups. The original study reported Cronbach's alpha at .79. Alpha for the current study was .87 for shyness and .77 for sociability.

Social support. The 12-item Social Support Scale (Zimet, Dahlem, Zimet, & Farley, 1988) measures the amount of support from the sources of family, friends, and significant other. Examples of items on this scale are, "My family really tries to help me," "My friends really try to help me," or "There is a special person who is around when I am in need." Participants responded on a seven-point Likert-type scale from very strongly disagree to very strongly agree. Higher scores indicate more social support. I performed a median split into high social support and low social support for each of the three social support categories: friends, family, and significant other. The original study reported Cronbach's alpha at .91, .87, and .85 for the significant other, family, and friends subscales, respectively. The current study reports

Cronbach's alpha at .96, .93, and .96 for the significant other, family, and friends subscales, respectively.

Identity processing styles. The 37-item Identity Styles Inventory (ISI-5) (Berzonsky, Soenens, Luyckx, Smits, Papini, & Goossens, 2013) measures individuals' identity style as either information seeking, normative, or diffuse avoidant. Examples of items on this scale are, "Talking to others helps me explore my personal beliefs," "I strive to achieve the goals that my family and friends hold for me," and "Who I am changes from situation to situation." Participants responded on a five-point Likert-type scale from not at all like me to very much like me. Items for the subscales were scored and a raw score was produced. The raw scores were then converted into z-scores. The z-scores were compared in order to determine the individual's particular identity style. Berzonsky et al. (2013) reported Cronbach's alphas that varied from .74 to .86 for the informational subscale, .75 to .82 for the normative subscale, and .71 to .89 for the diffuse-avoidant subscale. The current study reports alpha at .75 for the informational subscale, .76 for the normative subscale, and .71 for the diffuse-avoidant subscale.

Rumination. The 12–item Rumination Scale (Trapnell & Campbell, 1999) measures individuals' tendencies to negatively reflect and dwell on aspects of themselves and their decisions. Examples of items on this scale are "Sometimes it is hard for me to shut off thoughts about myself" or "I never ruminate or dwell on myself for very long." Participants responded a five–point Likert–type scale ranging from strongly disagree to strongly agree. Higher scores indicate more rumination. Previous research reported Cronbach's alpha around .80. Alpha for the current study was .89.

Anxiety. The 21-item State-Trait Inventory for Cognitive and Somatic Anxiety (STICSA) (Ree et al., 2008) measures an individual's trait and state anxiety in addition to the

cognitive and somatic dimensions of anxiety. Examples of items in this scale are "I think the worst will happen" and "I feel dizzy." Participants responded on a four–point Likert–type scale from not at all to very much so. I used the scale to only measure trait anxiety, which means that the participants responded to the 21–item inventory with the directions to think about the items in terms of their general mood. The original study reported reliability coefficients at around .80. The current study reports alpha at .88 for cognitive anxiety, .83 for somatic anxiety, and .90 for overall anxiety.

Identity distress. The 10-item Identity Distress Scale (Berman et al., 2004) measures distress that is related to identity issues that are unresolved. Items on this scale ask participants to respond to how much they have been upset, distressed, or worried over various issues in their life such as, "long term goals" or "group loyalties." This scale also includes items asking the "overall level of discomfort about all the issues <u>as a whole</u>" and "how much uncertainty over these issues <u>as a whole</u> has interfered with your life." Participants responded on a five-point Likert-type scale ranging from none at all to very severely. Participants also responded to, "how long [they] have felt upset, distressed, or worried over these issues as a whole" on a five-point Likert-type scale ranging from never or less than a month to more than 12 months. Berman et al. (2004) reported Cronbach's alpha at .84. The current study reports alpha at .72.

Negative Social Outcome Thoughts and Feelings Qualitative Questions. I also included a qualitative section to attain information that is lacking within the scales. Participants read a scenario that takes place at a party, where something happens to the character in the scenario that either speaks to his/her social ability or does not speak to his/her social ability. Participants responded to a set of four questions regarding if they were in the situation from the viewpoint of the individual in the scenario, what the participant would be thinking about, would

be feeling, how he/she would feel about their sense of self, and which of these three would bother him/her the most (see Appendix A).

Procedure

I administered an online survey to a convenience sample of participants from a participant pool of Introductory Psychology students who received credit for participating in the study. I administered the surveys through a secure, online program which ensured anonymity. Once participants gave their informed consent, they continued on to respond to the six scales, three open-ended questions and one multiple choice question for each of the two scenarios from Negative Social Outcome Thoughts and Feelings Qualitative Questions, and three demographic questions.

Results

Correlations

There were several significant simple correlations. Shyness was positively correlated with rumination (r = .34), cognitive anxiety (r = .43), somatic anxiety (r = .31), overall anxiety (r = .42), and average identity distress rating (r = .23). Shyness was also negatively correlated with social support of friends (r = -.19), of family (r = -.32), and of significant other (r = -.15). There was also a negative correlations between social support of friends and the average identity distress rating (r = -.15). See Table 4 for the full correlation matrix.

Hypothesis #1 related to Rumination

My first hypothesis was that high shy, high social support individuals with a diffuse—avoidant processing orientation will experience the most rumination, followed by normative individuals, followed by informational individuals. I also hypothesized that normative individuals would experience the most rumination followed by diffuse—avoidant, followed by

informational for high shy, low social support; low shy, high social support; and low shy, low social support. There was no interaction effect of shyness, social support, and identity style as they relate to rumination, F(2, 167) = .41, p = .66, partial eta² = .01.

There was, however, an interaction effect of shyness and social support as they relate to rumination, F(1, 167) = 4.22, p < .05, $partial\ eta^2 = .03$. I used the measure for social support of friends in this analysis. [Subsequent tests using the measures for social support of family and of significant others were used with no significant results: $(F(1, 167) = .08, p = .77, partial\ eta^2 = .00$; F(1, 167) = .24, p = .63, $partial\ eta^2 = .00$; for family and significant other, respectively).] Follow-up analyses revealed that low shy individuals with high social support show lower levels of rumination than low shy individuals with low social support. However, there was no difference between the levels of social support for high shy individuals.

Hypothesis #2 related to Anxiety

My second hypothesis was that high shy, high social support individuals with a diffuse–avoidant processing orientation will experience the most anxiety, followed by normative individuals, followed by informational individuals. I also hypothesized that for high shy, low social support, normative individuals would experience the most anxiety, followed by diffuse–avoidant, followed by informational. I also predicted that for low shy, diffuse–avoidant individuals, those with high social support will experience more anxiety than those with low social support; for low shy, normative individuals, those with low social support will experience more anxiety than those with high social support; and for low shy, informational individuals, social support will not matter. There was no interaction effect of shyness, social support of friends, and identity style as they relate to anxiety, F(2, 167) = 1.39, p = .25, partial eta² = .02.

Hypothesis #3 related to Identity Distress

My third hypothesis was that for low shy, high social support, normative individuals will experience least amount of identity distress and that informational individuals will experience the greatest amount of identity distress overall. I planned to explore the other relationships. There was no interaction of shyness, social support of friends, and identity style as they relate to identity distress, F(2, 168) = 1.59, p = .21, partial $\theta ta^2 = .02$.

Qualitative Results

Pairs of researchers read through each of the qualitative responses and discussed the themes that emerged throughout the responses. For each of the six qualitative questions, various themes emerged from the participants' responses. See Appendix B for the full list of each of the themes. Once the researchers agreed on the themes, they established operational definitions for each of the major themes. The researchers used those operational definitions to separately code 50 responses. Once researchers finished coding the first 50 responses, they examined the interrater reliability. Researchers revised the operational definitions that did not meet the expectations for inter-rater reliability until they arrived at proper inter-rater reliability. Inter-rater reliabilities for each of the themes that emerged were above 90%.

Non-Social Ability Situation Variables

Various patterns emerged when examining the results of the situation that spoke to an individual's non-social ability in a social situation in spilling a drink. The category of "judgment of themselves" includes an explicit or implicit judgment of themselves or their behavior. This could include comments such as questioning what they did. It could also include stating that they are stupid or clumsy, made a horrible impression, or made a fool of themselves. Chi-square

analysis revealed a significant pattern of relationship between shyness and the non-social rumination categories of judgment of themselves, $\chi^2(1) = 4.17$, p < .05. An indication in the responses of judgment of the self accounted for 25% of the responses for participants with high shyness but only 13% of the responses for those with low shyness. See Table 5. Individuals with high shyness think more judgmental thoughts toward themselves with regard to these non-social abilities potentially because they view their inability to do simple tasks as an indication that they will be unsuccessful in more complex social tasks. They may also believe that others will perceive this event as a negative indication of their abilities. Many participants indicated focusing on how others will perceive this mistake thinking, "How dumb it was to spill punch. What [must] other people [be] thinking about me?" or "You are so clumsy. What a great impression idiot. I wonder if they noticed."

The category of "guilt" includes mentioning any thoughts of feeling guilty or responsible for the situation and/or stating that they would apologize for the spill. Chi-square analysis revealed a significant pattern of relationship between shyness and the non-social rumination categories of "guilt", $\chi^2(1) = 8.86$, p < .05. An indication in the responses of guilt accounted for only 11% of the responses for participants with high shyness but 27% of the responses for those with low shyness. See Table 6. This is interesting because one would expect that individuals with high shyness would experience more guilt about the spill. However, individuals with high shyness could be thinking more about the judgment of themselves than actually feeling guilty about the spill. Since they are more judgmental of themselves, spilling something is not a big surprise to them because they view themselves so harshly. They may not feel as guilty because they think that this sort of things happens to them all the time around other people and have desensitized themselves to feeling guilty about a spill. Their thoughts are directed to a greater

extent to other people, "Did anyone see that? How can I get away without anyone noticing?" as opposed to individuals with low levels of shyness who think more along the lines of, "I would be wondering where the cleaning supplies were and try to clean the drink up, then apologize to whoever lived at the house."

The category of "nervousness" includes mentioning feeling scared, panicked, worried, or uneasy about the spill. Chi-square analysis revealed a significant pattern of relationship between shyness and the non-social anxiety categories of "nervousness", $\chi^2(1) = 5.07$, $\rho < .05$. An indication in the responses of nervousness accounted for 37% of the responses for participants with high shyness but only 21% of the responses for those with low shyness. See Table 7. This again follows with the idea that individuals who experience higher levels of shyness also tend to judge themselves. Individuals with high shyness levels feel uneasy or nervous about the situation because they are also wondering about the responses of those around them. One participant with high levels of shyness stated they would feel, "Flustered because I know that I am more than punch on the floor, but it may be too late to prove that." and another stated they would feel, "Some discomfort, slightly nervousness due to judgment from others."

The category of "the desire to be someone else" includes mentioning a wish that they were someone else (not themselves), that they were invisible, and/or somewhere else besides the party. Chi-square analysis revealed a significant pattern of relationship between shyness and the non-social identity distress category of "the desire to be someone else", $\chi^2(1) = 5.01$, p < .05. An indication in the responses of a desire to be someone else accounted for 6% of the responses of participants with high shyness but accounted for no responses of those with low shyness. See Table 8. Individuals with high levels of shyness view themselves and their actions in such a negative light. They want to be anyone but themselves. They may also truly believe that their

actions and their decisions are incorrect and will result in negative perceptions by others of their actions with one participant stating, "I'm just that kid who shouldn't be there and I messed up."

This culminates in the desire to be anywhere or anyone else but themselves in that particular situation.

Social Ability Situation

Various patterns emerged when examining the results of the situation that spoke to an individual's social ability in a social situation when two acquaintances do not speak to the individual after the individual tries to spark a conversation. The category of "negative perceptions by others" includes mentioning thoughts or beliefs that the other individuals they tried to talk to dislike them. This could include the idea that others believe the participant is stupid, annoying, or awkward. It also could include the belief that there is something wrong with them or the belief that the other individuals heard a rumor or other negative information about the participant. Chi-square analysis revealed a significant pattern of relationship between shyness and the social rumination category of "negative perceptions by others", $\chi^2(1) = 9.88$, p < .05. An indication in the responses that the others might believe the participant was stupid, annoying and awkward accounted for 5% of the responses of participants with high shyness but only 1% of the responses for those with low shyness. The belief that the participant believes there is something wrong with them accounted for 13% of the responses of participants with high shyness and 14% of the responses for those with low shyness. The belief that the others heard a rumor or other negative information about them accounted for 3% of the responses of participants with high shyness and 8% of the responses for those with low shyness. Finally, multiple thoughts or thoughts in general about the other peoples' perceptions accounted for 15% of the responses of

participants with high shyness, but only 4% of the responses for those with low shyness. See Table 9.

Interestingly, there is little difference between participants with low levels of shyness and high levels of shyness believing that there is something wrong with them. This might be a natural human reaction to people acting unresponsive when one tries to talk to them. However, the way that individuals with high and low shyness perceive what is wrong with them seems to differ. A closer examination of the responses reveals that individuals believe the factors wrong with them could be either internal (I'm stupid or awkward) or external (Is there something on my face?). However, many individuals with high shyness seem to think that something is more internally wrong with them, while individuals with low shyness seem to think something is more externally wrong with them. Responses from some individuals with high shyness reveal they think about internal factors such as, "This is rather odd. Shows what I get for trying to make new friends. Either I'm more awkward than I once thought, I offended them somehow, or I just rambled on about something stupid." They may also think about a combination of internal and external factors such as, "I would be wondering if I said something that sounded dumb or said something that offended them. I would also be wondering if they were staring at me because of my appearance, like if I had something in my teeth or on my face." Participants with low shyness reveal that they think more about external factors such as, "Am I thinking these people are someone else? Is there something in my teeth?"

The three other patterns within the category of negative perceptions by others seem to follow the idea in a situation that speaks more to the individual's non-social ability where individuals who are highly shy tend to judge themselves in a situation. If participants judge themselves in a situation that speaks to non-social abilities, it would logically follow that they

would worry about what other people think when they make what they perceive to be an actual social mistake. They tried to be social, but they do not see the pay-off and worry to a greater extent what others think about them.

The category of "confusion" includes mentioning that they would feel like they do not understand what is going on or why the acquaintances will not talk to them. This could include wondering what they said, what's going on, or mentioning that they would feel confused, shocked, or surprised. Chi-square analysis revealed a significant pattern of relationship between shyness and the social anxiety category of confusion, $\chi^2(1) = 4.86$, $\rho < .05$. An indication in the responses of confusion accounted for 14% of the responses of participants with high shyness but for 26% of the responses for those with low shyness. See Table 10. This indicates that individuals with low levels of shyness are thinking less about how this mistake will affect them socially. They are thinking more about the confusion or misunderstanding they experience for why the social situation is not turning out the way they expected, "Confused and wondering if these people were deaf" or "I would be a little curious as to what was wrong with them." Individuals with low shyness seem to externalize their confusion as opposed to internalizing why this happened to them.

The category of "having a little to no impact" includes mentioning that the situation would have little to no impact on how they feel about their sense of self. They may state that it does not matter, it would not change their opinion, or they will shake it off. Chi-square analysis also revealed a significant pattern of relationship between shyness and the social identity distress category of "having a little to no impact", $\chi^2(1) = 10.38$, $\rho < .05$. An indication in the responses of having little to no impact accounted for 24% of the responses of participants with high shyness and 46% of the responses for those with low shyness. See Table 11. This follows with

the idea that if individuals with low shyness do not worry about others perceptions and do not experience more negative emotions than individuals with high shyness, they are not going to feel different about their sense of self, "I would feel okay about myself because I would be confident enough to know I did not do anything wrong, they just refuse to answer me."

The category of "low self-esteem" includes mentioning a drop in self-esteem or selfconfidence. This could include feeling unworthy, worthless, or unwanted; feeling like they are not good enough or feeling like they need to be better; feeling disappointed or upset in general or in themselves; feeling stupid; feeling like they don't belong; etc. Chi-square analysis also revealed a significant pattern of relationship between shyness and the social identity distress category of "low self-esteem", $\chi^2(1) = 4.64$, p < .05. An indication in the responses of selfesteem accounted for 43% of the responses of participants with high shyness but only 58% of the responses for those with low shyness. See Table 12. If individuals with low shyness do not believe there is an impact on their sense of self, logically they also would not experience a drop in self-esteem or self-confidence. People might naturally feel uneasy in themselves, "I would feel a little insecure." The number of participants with low levels of shyness that experienced lower levels of self-esteem (43%) compared with those that experienced little to no impact (46%) is fairly similar. However, the number of participants with high levels of shyness that experienced lower levels of self-esteem (59%) compared with those that experienced little to no impact (24%) is nearly double. So, individuals with low shyness experience an equal amount of negative effects and positive effects when faced with a negative social situation. However, for individuals with high shyness, more individuals experience negative effects when faced with a negative social situation.

Discussion

My first hypothesis was that high shy, high social support individuals with a diffuse—avoidant processing orientation will experience the most rumination, followed by normative individuals, followed by informational individuals. I also hypothesized that normative individuals would experience the most rumination followed by diffuse—avoidant, followed by informational for high shy, low social support; low shy, high social support; and low shy, low social support. This hypothesis was not supported due to insignificant results. This could be due to the fact that identity style may not be related with the amount of rumination one experiences. The correlation matrix revealed that only the informational processing orientation is positively correlated with rumination. Seeking out all relevant information pertaining to the self could relate to higher amounts rumination because informational individuals want to ensure that all the dissonant feedback is taken into account when developing their sense of self. So, they spend a greater deal of time going over the information they receive to ensure they are taking into account all the information they receive.

Normative and diffuse-avoidant individuals, on the other hand, do not receive or pay attention to the same amount of self-relevant information that informational individuals do. Normative individuals only pay attention to individuals from those individuals significant to them. Diffuse-avoidant individuals put off making decisions and do not actively seek information relative to themselves, so they simply do not have the same amount of self-relevant information to continually go over in their minds. So, the informational processing style might simply relate to higher amounts of rumination overall regardless of the level of social support or shyness, which could explain the reason there is no interaction effect.

My second hypothesis was that high shy, high social support individuals with a diffuse avoidant processing orientation will experience the most anxiety, followed by normative individuals, followed by informational individuals. I also hypothesized that for high shy, low social support, normative individuals would experience the most anxiety, followed by diffuse avoidant, followed by informational. I also predicted that for low shy, diffuse-avoidant individuals, those with high social support will experience more anxiety than those with low social support; for low shy, normative individuals, those with low social support will experience more anxiety than those with high social support; and for low shy, informational individuals, social support will not matter. This hypothesis was not supported due to insignificant results. Social support of friends and social support in general are negatively correlated with anxiety, while shyness, informational processing style, and diffuse-avoidant processing style are positively related to anxiety. Shyness, social support, and identity style, while related to anxiety, do not seem to interact with regard to anxiety. This could be due to the fact that the experience of general anxiety is related to different factors in greater ways. It is possible that, would I have looked into anxiety with regard specifically to social situations, there may have been significant interaction effects. However, since the scale I used for this study addressed more the general cognitive and somatic aspects, these variables do not interact in significant ways.

My third hypothesis was that for low shy, high social support, normative individuals will experience the least amount of identity distress and that informational individuals will experience the greatest amount of identity distress overall. This hypothesis was not supported due to insignificant results and no other significant interactions were found. My sample was made up of college-age students, which could potentially account for the results. It is possible that many college-age students have a better sense of their identity and may not experience as much distress

with regard to who they are. They could be moving out of the stages of discovering their identity and into further stages, so lower levels of distress might be seen overall. It would be interesting to look into a wider population to determine if any significant interaction would appear with a sample that is typically thought of to experience a greater amount of distress.

Despite not finding any three-way interactions, there were still some interesting findings. I was able to replicate previous findings in that shyness was positively correlated with rumination, anxiety, and identity distress. This could indicate that shyness can make things truly difficult for individuals with regard to mental health. The simple relationship between high levels of shyness and high levels of rumination, anxiety, and identity distress indicates that shyness really is an issue that should be given more attention. The other interesting findings of this study can attribution to this implication as well.

I also found a significant two way interaction between social support of friends and shyness on rumination. Follow-up analyses revealed that for low shy individuals, high social support was related to a lesser amount of rumination than low social support. This finding is especially interesting when compared to high shy individuals for which social support does not matter in the level of rumination one experiences. The implication of this finding may be that any social circumstance shy individuals experience will give them anxiety, so no matter the amount of support they get from friends, they will still experience a good deal of rumination. They may continue to dwell on negative social situations despite the level of positive feedback or support they receive from their friends about how the situation went. For individuals without shyness, on the other hand, high levels of social support is related to lower levels of rumination while low levels of social support is related to higher levels of rumination as previous research indicates. It seems that there is something about the experience of shy individuals that may cause

them to view their social support differently from those who do not experience shyness. It could be possible that even if a shy individual has a few close friends, their anxiety about social situations makes it difficult for them to allow this social support to buffer against the effects of rumination.

When examining the qualitative data collected, individuals with high shyness seem to experience self-judgmental thoughts, feelings of nervousness, low self-esteem, and a desire to be someone else when examining situations that speak both to social and non-social abilities. Individuals with low shyness, however, seem to experience more guilt, confusion, and little to no impact on their sense of self than individuals with high shyness. Individuals with high shyness focus their thoughts, feelings, and sense of self to a great extent on the other individuals present in the situation. They feel nervous about spilling the punch, judge themselves for "being so stupid," and wish they were anyone or anywhere but themselves in that situation. When they are faced with a social situation with a negative outcome, they express a belief that the individuals look negatively upon them and experience lowered self-esteem. They internalize what is going on and take the events in the situation as a reflection of who they are and how others feel about them.

Individuals with low shyness express guilt and a desire to apologize for the spill. There is little negative impact on their thoughts, emotions, or feelings about their sense of self in a situation that does not speak to their social abilities. With regard to the situation that speaks to their social ability, they simply express confusion with the situation and express that it would have little to no impact on their sense of self. They externalize what is going on as opposed to individuals with high shyness. The internalizing effects of rumination, anxiety, and identity distress can be very detrimental to one's mental health. The finding that individuals with high

shyness experience more internalization may suggest that they experience more difficulties with the negative effects of this internalization.

It is especially interesting that there are significant patterns of results for shyness, but not for social support. There was little mention of seeking help from the two friends present at the get-together with them in helping to lessen these negative experiences. This finding supports the finding from the ANOVA analysis. For individuals with low shyness, high social support was related to less rumination than those with low social support. For individuals with high shyness, however, social support does not matter in the level of rumination one experiences. These findings support the idea that shyness is really important to examine. If individuals with high shyness think to such a greater extent about what others are thinking of them, then no matter what they do (social or non-social abilities), even having social support does not help much. Since they internalize so much more, they might continue to think or feel like things went wrong regardless of what their social support system tells them. This means it is important to further focus on shyness, especially when examining depression issues, of which one underlying component is rumination. Something needs to be established to help buffer the effects of rumination besides social support. This provides support for methods that inspect the individual's thoughts and beliefs in order to reorient their negative, self-judgmental, and internalizing thoughts into more positive, self-enhancing, and externalizing thoughts.

There were a few limitations to this study. The first limitation, as previously noted, is that the sample consisted of college-aged students who might potentially have a better sense of who they are and may not experience the same levels of identity distress as those still trying to discover their identity. It would be beneficial to look into a wider population to determine if the same patterns follow or if different patterns emerge for different age groupings.

Another limitation is the fact that the data collected is based on self-report. Both the results of the survey and the qualitative data is based on the individuals' perceptions rather than the surrounding factors of their lives such as the size of their social support group, the reasons behind their shyness, or other factors that could contribute to their experience of rumination, anxiety, or identity distress. Additional research into these surrounding factors based on more objective measures might reveal different patterns than those revealed from self-report data.

Further research should be done to delve deeper into the actual experiences of social support among shy and non-shy individuals outside of their self-report. By examining the actual networks of social support between the differing levels of shyness, or potentially between introversion and extraversion, we could learn what it is about the social experience of shy individuals that is different from non-shy individuals. This knowledge could give us insight into ways to better help shy individuals cope with their experiences in social situations.

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Table 1 *Mean Rumination Scores for Shyness, Social Support, and Identity Style*

			Rumination	
		Х	SD	п
Shyness	Low	37.66	8.44	79
	High	42.95	6.84	100
Social Support:	Low	41.56	7.41	88
Friends	High	39.61	8.51	91
Social Support:	Low	40.23	8.19	88
Family	High	40.89	7.89	91
Social Support:	Low	39.97	8.36	88
Significant Other	High	41.10	7.72	91
Identity Style	Diffuse-avoidant	40.48	8.24	56
	Normative	39.56	7.68	57
	Informational	41.59	8.18	66

Table 2 *Mean Anxiety Scores for Shyness, Social Support, and Identity Style*

			Anxiety	
		Х	SD	п
Shyness	Low	31.48	7.55	79
	High	39.31	10.62	100
Social Support:	Low	37.06	10.03	87
Family	High	34.56	10.12	92
Social Support:	Low	36.54	10.55	88
Family	High	35.03	9.69	91
Social Support:	Low	36.22	11.03	88
Significant Other	High	35.39	9.28	91
Identity Style	Diffuse-avoidant	36.13	10.60	56
	Normative	35.00	9.89	57
	Informational	36.61	10.01	66

Table 3
Mean Identity Distress Scores for Shyness, Social Support, and Identity Style

Identity Distress

		Χ	SD	п
Shyness	Low	2.04	.62	79
2	High	2.29	.59	100
Social Support:	Low	2.30	.62	87
Friends	High	2.06	.58	92
Social Support:	Low	2.22	.60	88
Family	High	2.14	.62	91
Social Support:	Low	2.23	.67	88
Significant Other	High	2.13	.55	91
Identity Style	Diffuse-avoidant	2.26	.63	56
3 3	Normative	2.08	.60	57
	Informational	2.22	.60	66

Table 4 Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	8
1.	Rumination																			
2.	Shyness	.34**																		
3.	Sociability	10	45**																	
4.	Informational	.25**	08	.07																
5.	Normative	06	.06	.06	03															
6.	Diffuse-Avoidant	.09	.34**	11	27**	.02														
7.	Commitment	13	29**	.11	.30**	.28**	64**													
8.	Cognitive Anxiety	.64**	.43**	03	.22**	03	.25**	25**												
9.	Somatic Anxiety	.39**	.31**	03	.17*	.01	.15	06	.61**											
10.	Anxiety	.59**	.43**	03	.22**	01	.23**	19*	.93**	.87**										
11.	Average Distress	.46**	.23**	02	.15	08	.23**	30**	.65**	.39**	.60**									
	rating																			
12.	How long	.35**	.23**	12	.08	16*	.13	19*	.50**	.30**	.46**	.42**								
	experienced distress																			
13.	Social Support:	.05	15*	.23**	.22**	.04	23**	.23**	13	08	12	07	12							
	Significant Other																			
14.	Social Support:	.03	32**	.28**	.28**	.17	28**	.27**	14	12	15	05	23**	.56**						
	Family																			
15.	Social Support:	07	19*	.22**	.19**	.07	18*	.19**	19**	12	18*	15*	20**	.61**	.53**					
	Friends																			
16.	Social Support:	.00	25**	.28**	.27**	.11	27**	.27**	18*	12	18*	11	22**	.87**	.81**	.84**				
	Total																			
17.	Age	.03	.00	14	.14	03	16*	.10	02	03	02	03	.15*	.03	.03	13	03			
18.	Year in College	05	10	12	18*	17*	15*	.11	.01	07	03	01	.10	03	.08	02	.01	62**		

^{**}Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed)

Non-Social Ability
Table 5
Percentages of Judgment of Self Noted by Individuals with Low Shyness and High Shyness

Shyness	Judgmer	nt of Themselves
	No	Yes
Low	72 (88%)	10 (12%)
High	77 (76%)	24 (24%)

Table 6
Percentages of Guilt Noted by Individuals with Low Shyness and High Shyness

	Guilt			
Shyness	No	Yes		
Low	60 (73%)	22 (27%)		
High	90 (89%)	11 (11%)		

Table 7
Percentages of Nervousness Noted by Individuals with Low Shyness and High Shyness

_	Nervo	usness
Shyness	No	Yes
Low	64 (78%)	18 (22%)
High	65 (64%)	36 (36%)

Table 8
Percentages of Desire to be Someone Else Noted by Individuals with Low Shyness and High Shyness

	Desire to be Se	omeone Else
Shyness	No	Yes
Low	82 (100%)	0 (0%)
High	96 (95%)	5 (5%)

Social Ability
Table 9
Percentages of Negative Perceptions by Others Noted by Individuals with Low Shyness and High Shyness

	Negative Perceptions by Others				
Shyness	No	1	2	3	4
Low	60	1	10	7	4
	(73%)	(1%)	(12%)	(9%)	(5%)
High	65	5	12	3	16
	(64%)	(5%)	(12%)	(3%)	(16%)

Table 10 Percentages of Confusion Noted by Individuals with Low Shyness and High Shyness

	Confu	sion
Shyness	No	Yes
Low	61 (74%)	21 (26%)
High	87 (86%)	14 (14%)

Table 11
Percentages of Little to No Impact Noted by Individuals with Low Shyness and High Shyness

	Little to	No Impact
Shyness	No	Yes
Low	43 (52%)	39 (48%)
High	76 (75%)	25 (25%)

Table 12
Percentages of Self-Esteem Noted by Individuals with Low Shyness and High Shyness

	Self-E	Esteem
Shyness	No	Yes
Low	47 (57%)	35 (43%)
High	43 (43%)	58 (57%)

Appendix A Negative Social Outcome Thoughts and Feelings Qualitative Questions

Non-social ability

Sam goes to a party with 3 close friends. Also at the party are fourteen of Sam's acquaintances that Sam does not know very well. While at the party, Sam spills punch all over the carpeting.

Follow—up questions:

- 1. Put yourself into Sam's shoes. Describe what you would be <u>thinking</u> about (what thoughts would be going through your head) in this situation if you were Sam.
- 2. Put yourself into Sam's shoes. Describe how you would be <u>feeling</u> (your emotions) in this situation if you were Sam.
- 3. Put yourself into Sam's shoes. Describe how you would <u>feel about yourself</u> (your sense of who you are) if this in this situation if you were Sam.
- 4. Review your answers to the questions above. Which of these would bother you the most?
 - a. What you would be thinking.
 - b. How you would be feeling.
 - c. How you would feel about yourself.

Social ability

Taylor goes to a party with 3 close friends. Also at the party are fourteen of Taylor's acquaintances that Taylor does not know very well. Trying to be friendly, Taylor goes up to two of these acquaintances that Taylor does not know very well and tries to start up a conversation with them, but they simply stare at Taylor and do not reply.

Follow—up questions:

- 1. Put yourself into Taylor's shoes. Describe what you would be <u>thinking</u> about (what thoughts would be going through your head) in this situation if you were Taylor.
- 2. Put yourself into Taylor's shoes. Describe how you would be <u>feeling</u> (your emotions) in this situation if you were Taylor.
- 3. Put yourself into Taylor's shoes. Describe how you would <u>feel about yourself</u> (your sense of who you are) if this in this situation if you were Taylor.
- 4. Review your answers to the questions above. Which of these would bother you the most?
 - a. What you would be thinking.
 - b. How you would be feeling.
 - c. How you would feel about yourself.

Appendix B
Themes from the Negative Social Outcome Thoughts and Feelings Qualitative Questions

	Theme	Categories	Examples
Non-Social Rumination	Embarrassment	 Participant mentions feeling embarrassed by the spill they caused. Participant mentions feeling awkward by the spill they caused. Participant mentions feeling uncomfortable by the spill they caused. Participant mentions feeling nervous/scared by the spill they caused. Participant mention a mixture of these emotions by the spill they caused. 	"I would feel very awkward" #2; "I would be embarrassed" #78
	Thoughts of Others	 Participant mentions feeling judged by those around them (friends or strangers). This includes feelings that people will make fun of them, people will be mad, or people will be talking about them. Participant mentions that they would wonder who saw them spill the punch. Participant generally mentions thoughts about what others (they make a comment about those around them- host or others in the room; this could be any comment that mentions other people) 	"worry about my acquaintances not knowing i'm a klutz" #69; "I hope no one saw me." #74
	Judgment of Themselves	Participant mentions a comment which implies or explicitly states a judgment of themselves or their behavior (i.e. What did I just do? I'm so stupid. I made a horrible impression, made a fool of myself, I'm so clumsy).	"I would be thinking I did something stupid." #141
	Cleaning	 Participant mentions needing help to clean up the spill Participant mentions generally that they want or need to clean up the spill. 	"My first thought would be to find paper towels or napkins to clean up the mess" #150
	Play it Cool	 The participant mentions a desire to play it cool The participant mentions a desire to act like nothing happened The participant mentions a desire to laugh the situation off, or laugh at themselves. The participant mentions a combination of the above factors 	"Relax. It'll be okay. Laugh it off." #65
No	Desire to Leave	Participant expresses a desire to leave the situation or the party.	"run far away" #46

	Guilt	Participant mentions any thoughts of feeling guilty or responsible for the situation and/or states that they would apologize for the spill.	"I feel so embarrassed but also guilty for wrecking the carpet" #20; "How much do I have to apologize?" #44
	Uncertainty	Participant mentions that they would feel unsure of what they should do.	"Oh no, what should I do?" #32
	No Concern	Participant mentions that they would not be concerned with the situation. This could include identifying that they would not think about the situation for long or they would feel a little embarrassed, awkward, uncomfortable, etc. at first, but it would not last very long.	"woops. Oh well, its a party. Things get spilt." #105
	Theme	Categories	Examples
	Ruin the Night	Participant mentions that the event of spilling the drink will ruin their night or make the night less enjoyable.	"it may have ruined the night to a certain extent" #1
	Embarra ss ment	Participant mentioned that they would feel awkward, embarrassed, or clumsy.	"I would feel embarrassed" #8
	Nervousness	Participant mentions they would feel nervous, scared, panicked, worried, or uneasy.	"Nervous, anxious, panicked" #20
	Irritation or Distress	 Participant mentions feeling mad, upset, or sad with themselves Participant mentions feeling mad, upset, sad in general Participant mentions feeling mad, upset, or sad with others 	"Maybe a little upset with myself" #30
	Worry over Others' Perceptions	Participant mentions that they would be concerned about what those around thought about them or imply that they would focus their attention on those around them.	"cautious of the feelings of those around me because of what just happened" #156
ty	Small Effect	Participant mentions that they would eventually be ok with the situation. They might mention that they would quickly brush it off, laugh it off, or joke about it. They might mention that they may be embarrassed, uncomfortable, uneasy, etc. at first, but would eventually be ok with it or not think about it too much.	"I would feel bad that it happened but I wouldn't dwell on it." #167
ial Anxie	Guilty and Apologetic	Participant mentions feeling guilty, responsible ashamed, or apologetic about the spill.	"I would feel really bad about spilling about would be apologizing" #121
Non-Social Anxiety	Physiological Functions	 Participant mentions feeling their heart racing Participant mentions blushing or their face turning red Participant mentions feeling sick. 	"my heart rate would increase a lot" #161

	No Effect	Participant mentions the situation would have no effect on how they feel.	"Spilling a drink around friends and acquaintances is not something that would affect me on an emotional level." #105
	Theme	Categories	Examples
Non-Social Identity Distress	No Effect	 Participant mentions a general comment about how there would be no change to their sense of self, they would not let it get to them, or there would be little impact Participant mentions that shortly after the incident (same day), they would feel fine about their sense of self Participant mentions that a few days after the incident would feel fine about their sense of self 	"I would feel the exact same." #2; "Probably at first I would feel like a klutz, but I would not let it get to me" #10
	Disappointment	Participant mentions that they would feel disappointed or ashamed in themselves.	"i would feel disappointed in myself that i made a fool of myself in front of people i hardly know" #6
	Drop in Self- Confidence	 Participant mentions they would feel funny about themselves, humiliated, or embarrassed Participant mentions they would feel like they do not know how to act around others Participant mentions they would feel like they are clumsy Participant mentions they would be mad at themselves or they would have negative thoughts in general Participant mentions they would feel inferior or not good enough (I am not good enough, I'm a bad friend, etc.) Participant mentions they would experience a mixture of feelings resulting in a drop in their self-confidence 	"I would feel like my ego and self- confidence dropped." #8; "I wouldn't feel to great" #37
	Negative Self Comments	Participant alludes to a general negative self image. This could include the following: I hate myself; I feel like a loser or idiot; I feel like a failure; I'm stupid; I am or feel dumb; I made a fool of myself; I'm not good enough; I don't feel good about myself; I messed up; Why would I do that?; etc.	"Stupid, how did I make such a stupid mistake." #92; "I'm such an idiot." #93

	Desire to be Someone Else	Participant mentions wishing they were someone else (they did not want to be themselves) or they were invisible and/or somewhere else besides the party.	"I would most likely want to feel invisible" #33; "I should have just stayed in." #115
	Looking to Others	 Participant mentions they would look to how others react or be cautious of those around them Participant mentions they would feel unwelcomed or outcast Participant generally mentions those around them (the host, other guests, friends, etc.) 	"I would avoid looking up at people" #55; "I would be mad at myself for spilling and drawing everyone's attention to me." #116
	Theme	Categories	Examples
Social Rumination	Thoughts about the people or situation	 Participant mentions thoughts that the other people are mean or rude Participant mentions thoughts that the other people are strange, awkward, or weird Participant mention they would wonder if the other people are deaf or simply did not hear them Participant mentions they would have thoughts directed towards the other people they tried to talk to or the situation. 	"Is this person deaf?" #105; "I would be thinking that these people are jerks" #23
	Self-Doubt	Participant doubts their actions or their abilities in the social context. This could include things like the participant's belief that it was stupid to talk to them, belief that they themselves are stupid, wondering if they said something wrong, wondering if they did something wrong. This does NOT include questioning what is wrong with them.	"did I say something they don't like?" #28
	Negative Perceptions by Others	 Participant mentions thoughts or a belief that the other individuals believe the participant is stupid, annoying, or awkward. Participant mentions they believe there is something wrong with them. Participant mentions the belief that these other individuals heard a rumor or other negative information about the participant. Participant mentions that a combination of these thoughts or thoughts in general about other's perceptions of them. 	"They think I'm stupid" #8; "I am to fat?" #61; "Do they know something or have heard some rumor about me that makes them hate me and not want to be around me?" #20

	Anger	The participant indicates that they would become angry, irritated, mad, etc. at the people they are trying to talk to.	"I'd want to slap them for making me feel bad" #27; "I honestly would be peeved" #110
	Questioning Lack of Response	The participant mentions a general wondering why they aren't responding. This does NOT include responses questioning why they did what they did. This also does NOT include responses such as "Did they hear me".	"Are they going to say something?" #6; "Why aren't they talking to me?" #108
	Let it go	 The participant mentions thoughts that they would stop talking to them. The participant mentions thoughts that they would pretend like it didn't happen and/or walk away. The participant mentions thoughts that they would brush it off. 	"I'm going to go nowno point in sticking around when clearly they don't want me here" #87
	Try talking again	The participant mentions that they would try again to talk to the person.	"I would try to bolster the conversation with humor or a compliment on one of my acquaintances outfit" Participant #83
	Theme	Categories	Examples
Social Anxiety	Sadness	 Participant mentions they would feel hurt. Participant mentions they would feel upset or sad Participant mentions they would feel disappointed or discouraged. Participant mentions they would feel general sadness or a combination of the above feelings. 	"I would feel a little discouraged" #13
	Worthlessness	 Participant mentions they would feel disrespected Participant mentions they would feel like a loser or stupid Participant mentions they would feel worthless Participant mentions they would feel self-conscious Participant mentions they would feel a combination of the above feelings. 	"I would feel stupid for even trying to start a conversation with the person." #85
	Anger	 Participant mentions they would feel mad, angry, or frustrated Participant mentions they would feel annoyed 	"Agitated" #79; "Angry, they should eat least respond to tell me

	 Participant mentions they would feel hatred toward the other people Participant mentions they would feel a combination of the above feelings. 	to go away." #93
Nervousness	 Participant mentions they would feel nervous or scared Participant mentions they would feel flustered Participant mentions they would feel a combination of the above feelings. 	"nervous, scared" #28; "a little flustered" #34
Embarra ss ment	 Participant mentions they would feel awkward Participant mentions they would feel embarrassed Participant mentions they would feel ashamed Participant mentions they would feel uncomfortable or uneasy Participant mentions they would feel a combination of the above feelings. 	"probably kind of uncomfortable #27; "I would feel awkward" #4:
Confusion	Participant mentions they would feel like they do not understand what is going on or why the acquaintances will not talk to them. This could include asking what they said, what's going on or mentioning they would feel confused, shocked, or surprised.	"I would be confuse on why they are being unresponsive." #60; "I would feel lost" #61
Rejection	 Participant mentions they would feel socially rejected (intentionally) Participant mentions they would feel isolated Participant mentions they would feel insignificant Participant mentions they would feel ignored (accidentally) Participant mentions they would feel a combination of the above feelings. 	"I would feel sad and unwanted" #24
Positive/Neutral Emotions	 Participant mentions that they would not care that deeply or would not be offended (neutral) Participant mentions that they would feel pride, happiness, excitement, or stimulation (positive) 	"I would be excited and stimulat by the challenge of gaining new friends." #83; "I wouldn't feel ba I honeslty would not care about what they thought of me." #92

	Theme	Categories	Examples
	Little to no impact	Participant mentions that the situation would have little or no impact on how they feel about their sense of self. They may state it does not matter, it would not change their opinion, or they will shake it off.	"it doesn't matter; at least I tried" #7; "I would possibly wonder if I said something wrong that they wouldnt reply, but then shake it off" #10
Distress	Superiority	 Participant mentions they would feel superior to the others Participant mentions that they would feel good about themselves. Participant mentions they would feel inferior to the others 	"I feel I am better than them because I'm willing to chat with them." #3; "Not as important." #79
Social Identity	Self-esteem	Participants mention a drop in self-esteem or self-confidence. This could include feeling unworthy, worthless, or unwanted; feeling like they are not good enough or feel they need to be better; feel disappointed or upset in general or in themselves; feel stupid; feel like they don't belong; etc.	"I would feel like they do not think I am good enough to talk to" #69; "I would feel a little insecure" #81
	Question self	 Participants mention that they would question themselves and/or their own actions Participants mention that they would question others/situation Participants mention that they would question both self and others 	"I would probably question myself a little bit and wonder if the two acquaintances didn't like who I was or what was wrong. I may begin to question if I was who I wanted to be." #76