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Many Roads to Social Satisfaction? Social Anxiety, Social Interaction Format, and Social Belonging

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MANY ROADS TO SOCIAL SATISFACTION?

SOCIAL ANXIETY, SOCIAL INTERACTION FORMAT, AND SOCIAL BELONGING

By

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Abstract

This study explored how different social interaction formats (face-to-face versus virtual) influence individuals' belongingness need satisfaction and interaction enjoyment. Furthermore, it also explored how personality variables related to social anxiety (i.e., Interaction Anxiousness, Fear of Negative Evaluation) interact with social interaction format to influence belongingness needs satisfaction and enjoyment. Participants engaged in a conventional face-to-face interaction or a virtual interaction (via Instant Messenger) with a same-sex confederate on a between-subjects basis. Participants then indicated the extent to which the interaction satisfied fundamental social needs (e.g., self-esteem, belonging), their positive and negative mood, as well as how much they enjoyed the interaction. The results indicated that face-to-face interactions led to greater satisfaction of basic belonging needs, more positive mood, and higher levels of interaction enjoyment than virtual interactions. Personality factors related to social anxiety did not moderate these findings.

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Many Roads to Social Satisfaction?

Social Anxiety, Social Interaction Format, and Social Belonging

Humans are an intensely social species, and such ultrasociality requires establishing and maintaining stable, positive social relationships (Baumeister & Leary, 1995). Humans strive for social belonging for good reason; belonging to groups has historically aided our survival and reproduction. Indeed, living in groups provides individuals with greater and more stable access to food, mates (and thereby, potential offspring), protection, and assistance with offspring care compared to living in isolation (Brewer, 2004). Because living in groups solves adaptive problems more effectively than living in isolation, humans have evolved a strong need to belong, or belongingness motivation (Baumeister & Leary, 1995).

Evidence for the adaptive nature of social inclusion is reflected in the deleterious consequences of both acute and chronic social rejection experiences. That is, social exclusion and rejection result in a cascade of negative experiences for the victim (e.g., lower self-esteem, sense of control, and meaningful existence; increased aggression; reduced self-regulatory capacity; impaired cognitive functioning; see Williams, 2007 for a review). Additionally, the human brain responds to social rejection in much the same way it responds to physical pain (i.e., heightened dorsolateral anterior cingulate cortex activation; dACC); in essence, rejection hurts and these hurt feelings motivate socially rejected persons to establish new social bonds, or repair strained social relationships (MacDonald & Leary, 2005).

Strategies for Maintaining Social Belonging

Because social group membership is vital to human physical and psychological health, and because rejection is inherently painful, humans have developed numerous creative strategies for satisfying social belonging. For example, those who have experienced subtle forms of rejection can counter its negative impact by simply writing about their favorite television program and its characters (parasocial relationships; Derrick, Gabriel, & Hugenberg, 2009). Furthermore, simply thinking about a loved one can buffer against acute experiences of rejection, without the loved one being physically present (Twenge, Zhang, Catanese, Dolan-Pascoe, Lyche, & Baumeister, 2007). These types of 'imagined' social interactions show how creative we can be in satisfying unmet belonging needs. We are now able to obtain some belongingness satisfaction through indirect social interactions, some of which are facilitated by various forms of media and technology.

Research demonstrating that others can help satisfy belongingness needs even when those individuals are not physically present are especially interesting given the recent development of social media technologies that facilitate virtual social interactions. Specifically, if individuals can satisfy belongingness needs indirectly through activities such as thinking about their favorite television shows or loved ones, and there are now a wide variety of technologies available for facilitating similar kinds of virtual (or imagined) interactions, now more than ever humans may have relatively unlimited access to social belonging. Nonetheless, there is a relative dearth of literature directly comparing the impact of various kinds of social interaction format (e.g., face-to-face versus virtual) on belongingness need satisfaction. Based on this paucity of research, the primary goal of the current research was to develop an initial understanding of how different

interaction formats influence social belonging by directly comparing the impact of face-to-face and virtual interactions on social belongingness satisfaction.

Primary Forms of Interaction: Face-to-Face Versus Virtual Interaction

Throughout the majority of human history, the primary method individuals had access to in order to establish social relationships and satisfy social belonging was through direct, face-to-face interaction (FTF). For example, Baumeister and Bushman (2011) show that, simply by living near other people, individuals tend to develop proximity-based social bonds. However, recent human history, particularly the last 100 years, has involved unprecedented advances in communication technology that have resulted in an explosion of formats for socially interacting with other people. These can roughly be categorized into one of two types: face-to-face and virtual interaction. This dichotomization of social interaction types has recently come about due to the rise of social media, computers, internet, and other virtual platforms. In the past, communication coincided with actual interaction among people who were physically present; however, as the internet grew, it slowly began to offer a range of platforms and ways for people to communicate with one another on a much broader scale and in turn interact more efficiently and extensively, but also less directly (Pollet, Roberts, & Dunbar, 2011).

Face-to-face interactions are rich in social cues; they include not only what the other individual is saying, but a wealth of other social information as well, such as posture, facial expressions, hand signals, and tone of voice (Bellamy & Hanewicz, 1999). This form of communication is direct and tangible, and there are few barriers to sending and receiving all of the various kinds of social interaction signals. In these kinds of interactions, both interaction partners are physically present for the exchange. Indeed, the human mind evolved to process social interaction information in this context (Psychobiological Model; Kock, 2004)

Conversely, virtual interaction (also referred to as computer-mediated communication; CMC) differs significantly from FTF interaction due to the lack of nonverbal gestures and verbal cues that are both characteristic of, and potentially integral to FTF communication. Also, social and personal characteristics of an individual are suppressed or difficult to determine in the context of CMC (Bellamy & Hanewicz, 1999).

Because face-to-face and virtual communication differ in both the kinds of social cues that can be sent and received, as well as the intensity of those signals, it becomes important to understand how each type of interaction influences the extent to which individuals' belongingness needs are satisfied by engaging in social interactions within each format. Indeed, research has yet to directly compared individuals' social satisfaction (e.g., self-esteem, sense of belonging) following each type of interaction (FTF versus virtual). Because social belonging is integral to psychological and physical health, understanding how each kind of interaction format influences levels of belonging is a critically important question that this study will attempt to address.

While numerous forms of virtual interaction exist, the current study chose to focus on instant messaging (i.e., typing responses via keyboard so that the interaction occurs via text). We chose this particular form of virtual interaction because it is devoid of informational cues that are associated with face-to-face-interaction (e.g., vocal tone, facial expressions, posture). If these characteristics are what guide smooth social interactions and facilitate belongingness needs, then comparing instant messaging to face-to-face interaction allows us to test a strong version of this study's hypothesis. Specifically, it was predicted that the physical presence of an interaction partner during a social interaction (FTF interaction condition) would lead to greater

belongingness need satisfaction than when the interaction partner is not physically present (Virtual interaction condition).

Personality, Interaction Type, and Belongingness Satisfaction

One interesting difference between FTF interaction and text-based virtual interaction is the level of anonymity individuals can maintain during the interaction. Whereas anonymity is non-existent in FTF interactions, individuals are often able to remain relatively anonymous in a virtual, text-based interaction. This variability in anonymity may lead some individuals to be more likely to prefer one interaction format over the other. For example, some individuals are dispositionally high in social interaction anxiousness (Leary, 1983a) and are intrinsically concerned with being negatively evaluated by others (Leary, 1983b); others are relatively unconcerned by these things and do not experience social interactions as stressful. Based on such fundamental personality differences related to how people differentially experience social interactions, it may be the case that those who are of low interaction anxiousness and fear of negative evaluation will appreciate real face-to-face interactions more due to their rich social cues, and in turn these types of interactions will better satisfy their belongingness needs. Conversely, those higher in interaction anxiousness and fear of negative evaluation may feel more comfortable in a virtual interaction setting because it provides a platform of anonymity and a level of distance throughout the interaction, which coincides well with their personality traits; as such, their belongingness needs will be better satisfied in virtual environments, which they may consider safer. Thus, the secondary hypothesis this study tested was the extent to which anxiety-related personality traits interact with social interaction format to influence belongingness need satisfaction, mood, and interaction enjoyment.

The Current Study

The current study took an initial step in testing these hypotheses by having participants engage in a traditional face-to-face interaction or a virtual interaction (Instant Messenger). Importantly, we held constant the relational closeness of the interaction partners by having participants interact with a same-sex confederate whom they were unfamiliar with. This allowed us to better determine the impact of the type of interaction format on belongingness need satisfaction, independent of relationship closeness. Participants then indicated the extent to which each kind of interaction satisfied fundamental social needs, specifically belonging, self-esteem, control, and meaningful existence. Participants also indicated their positive and negative mood resulting from the interaction they engaged in, as well as how interesting they found the interaction to be. Our results revealed that participants who engaged in a FTF interaction reported more satisfied basic social needs satisfaction, greater positive mood, and more enjoyment of the interaction then participants in the Virtual interaction condition. Surprisingly, personality characteristics related to social interaction anxiousness and fear of negative evaluation did not moderate these findings (a point elaborated upon in the Discussion section).

Methods

Participants

Participants were 89 (77 women; Mean age=20.64 years) undergraduate students who participated in exchange for partial course credit. The sample was comprised of 49 African American participants, 34 Caucasian participants, two Hispanic participants, one Asian participant and one American Indian participant; two participants did not indicate their ethnicity. Participants were randomly assigned to participate in a virtual or FTF interaction with a same-gender confederate on a between-subjects basis (see procedure below).

Materials

The primary dependent measures were the Basic Social Needs Scale as well as an additional five question scale assessing specific reactions to the social interaction.

Basic Social Needs Scale: To assess participants Basic Social Needs Satisfaction, we utilized a scale developed by Williams and colleagues to assess reactions to social inclusion and exclusion (e.g., Williams, Cheung, & Choi, 2000; Zadro, Williams, & Richardson, 2004); however, we adapted the wording of the questions to align with our specific interaction procedure. This scale assesses four basic social needs: belonging, perceived control, self-esteem, and meaningful existence (see Williams, 2007 for a review). We used a 20-item version of this scale (Appendix 1) that assesses current levels of these needs (e.g., "I felt a bond with the other person," "I felt I had control over the course of the interaction," "I felt liked," "I felt meaningless"). Participants responded to the questions using a 7-point Likert scale (*1=not at all*; *7=extremely*). Furthermore, this scale also included items assessing participants' current positive (*good, friendly, happy*) and negative mood (*bad, unfriendly, angry, unpleasant, sad*); participants provided their responses to the mood questions using the same 7-point Likert scale.

Interaction Enjoyment Questionnaire: To assess participants' general reaction to the interaction, we created five questions that participants were asked to respond to using a 7-point Likert scale (*1=not at all*; *7=extremely*): "I was nervous during the interaction with this person," "Interacting with this person made me anxious," "I enjoyed interacting with this person," "The interaction I had with this person was interesting," "I would enjoy interacting with this person again in the future."

Personality Questionnaires: Two scales were chosen to measure participants' dispositional concern with social interactions. The Interaction Anxiousness Scale (Appendix 2; Leary, 1983a)

consists of 15 items that assess participants' general anxiety regarding social interactions (e.g., "I usually feel comfortable when I'm in a group of people I don't know," "Parties often make me feel anxious and uncomfortable," "I am probably less shy in social interactions than most people," "I am usually at ease when speaking to a member of the other sex"). Participants responded to the questions using a 5-point Likert scale (*1= not at all*; *5= extremely*). The second scale, Fear of Negative Evaluation Scale (Appendix 3; Leary, 1983b), contains 12 items that measure whether an individual feels as if they are being judged negatively by others during social interactions (e.g., "I often worry that I will say or do the wrong things," "If I know someone is judging me, it has little effect on me," "I am usually worried about what kind of impression I make," "Other people's opinions of me do not bother me"). Participants responded using a 5-point Likert scale *(1= not at all; 5= extremely.)*

Procedure

Upon their arrival, participants were told that the study was interested in social interactions and following informed consent procedures, they would be asked to engage in an interaction with another participant and fill out some brief questionnaires. On a between-subjects basis, participants were randomly assigned to engage in a Virtual interaction via Instant Messenger Chat, or a Face-to-face interaction with a confederate. In order to test the specific effect of virtual versus FTF interactions on Basic Social Need Satisfaction, several experimental controls were implemented. First, participants always interacted with a same-sex confederate (i.e., our male experimenter interacted with male participants and our female experimenter interacted with female participants). Second, participants were given one of two sets of 'Getting-to-know-you" questions to control the content of the interaction and the topics discussed (Appendix 4; Sedikides, Campbell, Reader, & Elliot, 1999). Third, participants interacted for

precisely 5 minutes with the confederate in both kinds of social interaction; we pretested the number of questions necessary to ensure that participants would have more than enough content to discuss and then we ended each interaction promptly after five minutes.

In both the virtual and face-to-face interaction condition, participants met the confederate prior to being assigned to interaction type condition. Participants in the face-to-face interaction condition sat in chairs facing one another for their interaction. For the virtual interaction, the confederate was instructed to leave the room and use another laboratory to complete the virtual interaction via a laptop computer; thus, the participant was physically separated from their interaction partner in this condition. In both conditions, participants used the questions they were provided with to facilitate the interaction. After the five minute interaction, participants were asked to complete the Basic Social Needs Satisfaction scale, the Interaction Enjoyment Scale, the Interaction Anxiousness Scale, the Fear of Negative Evaluation Scale, and a brief demographics questionnaire. The order in which participants completed the personality scales (Fear of Negative Evaluation, Interaction Anxiousness) was counterbalanced on a between-subjects basis. Participants were then thanked for their participation and fully debriefed.

Results

Basic Needs Satisfaction and Mood: Prior to conducting any inferential statistics, scale reliabilities were calculated to determine the integrity of the subscales. While reliability was adequate for the constructs of belongingness ($\alpha = .67$), self-esteem ($\alpha = .71$), and positive mood ($\alpha = .83$), reliability was only moderate for control ($\alpha = .35$), meaningful existence ($\alpha = .49$) and negative mood ($\alpha = .42$).

To determine whether type of social interaction influenced Basic Social Needs Satisfaction and mood, independent *t*-tests were conducted, with interaction condition (FTF vs.

Virtual) as the independent variable and participants' basic needs and mood scores as the dependent measures.[1] Participants in the FTF interaction condition reported significantly higher levels of belongingness (M=6.11, SE=.08) compared to participants in the Virtual interaction condition (M=5.74, SE=.13), $t(87)=2.31$, p=.03, d=.49. Participants in the FTF interaction condition reported significantly higher levels of self-esteem (M=5.99, SE=.12) compared to participants in the Virtual interaction condition (M=5.51 SE=.13), $t(87)=2.66$, $p<.01$, d=.57. Participants in the FTF interaction condition reported significantly higher levels of meaningful existence (M=6.21, SE=.09) compared to participants in the Virtual interaction condition (M=5.85, SE=.12), $t(87)=2.42$, p=02, d=.51. Participants in the FTF interaction condition reported significantly higher levels of positive mood (M=6.20, SE=.11) compared to participants in the Virtual interaction condition (M=5.70, SE=.17), $t(87)=2.42$, p=02, d=.52. Participants across the FTF and Virtual interaction conditions did not differ significantly in their levels of reported control and negative mood (both ps>.34). Thus, the experience of a FTF interaction had numerous benefits, leading to more satisfaction of basic needs related to belonging, self-esteem and meaningful existence, as well as increased positive mood compared to a virtual interaction.

Interaction Anxiety and Enjoyment: Because the individual questions assessing how anxious and nervous the interaction made individuals feel were highly correlated, $r(87)=.54$, $p<.01$, we averaged these values into a single anxiety score where higher values indicated greater anxiety produced by the interaction. Individuals in the FTF interaction condition reported greater levels of anxiety (M=2.76, SE=.26) than individuals in the Virtual interaction condition (M=1.97, SE=.20), $t(87)=2.45$, p=.02, d=.52. Nonetheless, individuals in the FTF interaction condition indicated that they enjoyed interacting with their partner more (M=6.11, SE=.15) than individuals in the Virtual interaction condition (M=5.62, SE=.18), $t(87)=2.05$, p=.04, d=.43. FTF interaction

participants also indicated that they found the interaction with their partner more interesting (*M*=6.20, *SE*=.12) than did individuals in the Virtual interaction condition, (*M*=5.38, *SE*=.20), *t*(87)=3.57, *p*<.01, *d*=.75. Finally, individuals who engaged in a FTF interaction indicated that they would be more interested in interacting with their partner again in the future (*M*=5.82, *SE*=.19) compared to individuals who engaged in a virtual interaction (*M*=5.18, *SE*=.21), *t*(87)=2.28, *p*=.03, *d*=.48. Importantly, levels of anxiety were uncorrelated with the extent to which individuals in the virtual and FTF interaction conditions enjoyed interacting with their partner, the extent to which they found the interaction interesting, and whether they would want to interact with their partner again in the future (all *p*s>.24). Thus, although FTF interactions produced more anxiety than virtual interactions, this did not undermine the greater positive benefits of FTF interactions compared to virtual interactions.

Impact of Interaction Anxiousness and Fear of Negative Evaluation on Reactions to Virtual and FTF Interactions: To determine the impact of Interaction Anxiousness (IA) and Fear of Negative Evaluation (FNE) on reactions to virtual versus face-to-face interactions, we conducted customized univariate ANOVAs separately for FNE and IA. Specifically, the models included either participants' IA (α = .81) or FNE (α = .86) scores as continuous predictors (i.e., covariates) as well as the interaction type variable as a discrete independent variable. We tested for the interaction between condition and FNE as well as condition and IA across all dependent measures. In all cases, these personality variables did not qualify the main effect of condition found above (all *p*s>.05). In essence, individual differences in FNE and IA did not differentially predict reactions to FTF and virtual interactions.

Discussion

Humans have a fundamental need to maintain positive social relationships (Baumeister & Leary, 1995). Recent decades have witnessed an explosion of computer-mediated social interaction formats. The current research was designed to determine if these new virtual interaction formats satisfy social belongingness needs to the same extent as face-to-face interactions.

In an initial attempt to compare FTF and virtual interactions, the current study compared FTF interactions with a virtual interaction carried out via Instant Messenger, a text-based communication format, to determine their differential impact on basic social needs satisfaction. Furthermore, we also explored how personality variables related to interaction anxiety might qualify the benefits of pursuing social interactions in the context of FTF and virtual interactions. Because the human brain evolved to process social interactions face-to-face, rather than virtually (Kock, 2004), and because FTF interactions provide richer information content (e.g., posture, facial expressions, voice tone) than virtual interactions, we hypothesized that individuals would obtain greater belongingness benefits and enjoy the interaction more when it was carried out face-to-face, rather than virtually. Furthermore, we hypothesized that because a greater level of social distance and anonymity can be maintained in virtual, as opposed to FTF interactions, individuals dispositionally high in social anxiety would obtain more belongingness benefits from virtual, as opposed to FTF interactions. Conversely, we hypothesized that individuals low in dispositional social anxiety would obtain more belongingness benefits from FTF interactions, due to the richness of this form of communication.

To test these hypotheses participants engaged in a FTF or virtual interaction with a same-sex confederate. Following their interaction they completed the Basic Social Needs Satisfaction

Scale, the Interaction Enjoyment Scale and two personality questionnaires assessing general anxiety during social interactions (Interaction Anxiousness Scale, Fear of Negative Evaluation Scale).

Consistent with this study's primary hypothesis, FTF face interactions had a more positive impact on participants' basic social need satisfaction, positive mood, and interaction enjoyment, compared to virtual interactions. Participants in the FTF interaction condition reported significantly higher levels of belongingness, self-esteem, meaningful existence, and positive mood compared to those in the virtual interaction condition. FTF interaction participants also indicated that they enjoyed the interaction more, found it more interesting, and would be more interested in interacting with their partner again in the future, compared to virtual interaction participants. Although FTF interaction condition participants found their interaction more anxiety-provoking than virtual interaction participants, this elevated anxiety did not negatively impact the positive benefits of FTF interactions

Somewhat surprisingly, the results did not support this study's secondary hypothesis that individuals with high interaction anxiousness and fear of negative evaluation would prefer a virtual interaction (relative to a FTF interaction) and those of low interaction anxiousness and fear of negative evaluation would prefer a FTF interaction (relative to a virtual interaction). Rather, personality dimensions related to social interaction anxiety did not moderate the main effect of interaction type. Although perhaps this is surprising, it is consistent with a long-standing tradition of findings in social psychology indicating that situations often trump individual differences, particularly powerful situational variables (e.g., Milgram's obedience studies; Milgram, 1963). Furthermore, the interaction that participants were asked to engage in was likely not highly aversive or uncomfortable; perhaps in a more stressful type of social

interaction, aspects of personality related to social anxiety would differentially predict different belongingness need satisfaction in FTF versus virtual interactions.

Limitations and Future Directions: Although these initial results are interesting, this study is not without limitations. One limitation of this study was that the content of the interaction was controlled; participants were asked to answer and ask a specific set of questions, rather than engage in a spontaneous social interaction. While it would certainly be interesting to see if more spontaneous types of social interaction produce similar effects on belongingness need satisfaction, the current study was primarily interested in the specific effect of interaction format on basic social need satisfaction; as such, it was imperative to control the content of the interaction across conditions. However, it would be interesting to see if personality dimensions related to social anxiety play a more integral role in more spontaneous social interactions. Because these kinds of interactions are likely more anxiety-provoking, our original predictions based on the interaction between personality and interaction type might be more likely to be confirmed.

Also, the current study used a very basic form of virtual interaction: Instant Messenger Chat. However, we are aware of many other kinds of virtual interactions that offer a more realistic social experience, such Skype and iPhone Facetime. Perhaps these other virtual interaction formats are capable of overcoming the limitations of text-base communication in satisfying social belonging compared to FTF interactions. Future research would benefit by exploring this hypothesis. Nonetheless, the current study is an important starting point in understanding how different forms of social interaction are capable of satisfying social belonging and facilitating interaction enjoyment.

Conclusion

The current study explored how face-to-face and virtual interactions influence belongingness need satisfaction and interaction enjoyment, as well as how personality characteristics related to interaction anxiety might moderate these findings.. The results demonstrated that face-to-face interactions are a superior outlet for satisfying belongingness needs, relative to virtual interactions. These findings were not moderated by individual differences in interaction anxiety. As human societies become increasingly defined by virtual technology, it will be important to better understand how these new communication channels relate to traditional ways of obtaining social belonging.

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Footnote

[1]In all cases, question set and participant gender did not interact with the type of interaction participants engaged in (all *p*s>.05); as such, these variables are not discussed further and independent samples *t*-tests are reported throughout.

Appendix 1

Basic Needs Questionnaire
(Williams, Cheung, & Choi, 2000)

For each question, please select the response that best represents how you felt during the interaction you just engaged in with the other participant. Please use the following scale when making your responses.

1=NOT AT ALL
2
3
4
5
6
7=EXTREMELY

Belong 1:	I felt disconnected.
Belong 2:	I felt rejected.
Belong 3:	I felt like an outsider.
Belong 4:	I felt a bond with the other person.
Belong 5:	I felt that other person would want to bond with me a lot.
Self-esteem 1:	I felt good about myself.
Self-esteem 2:	My self-esteem was high.
Self-esteem 3:	I felt liked.
Self-esteem 4:	I felt insecure.
Self-esteem 5:	I felt satisfied.
Control 1:	I felt powerful.
Control 2:	I felt I had control over the course of interaction.
Control 3:	I felt I had the ability to significantly alter events during the interaction.
Control 4:	I felt I was unable to influence the other person.
Control 5:	I felt that the other person directed the course of the interaction.
Meaningful existence 1:	I felt invisible.
Meaningful existence 2:	I felt meaningless.
Meaningful existence 3:	I felt non-existent.
Meaningful existence 4:	I felt important.
Meaningful existence 5:	I felt useful.
Positive mood 1:	I felt good.
Negative mood 1:	I felt bad.
Positive mood 2:	I felt friendly.
Negative mood 2:	I felt unfriendly.
Negative mood 3:	I felt angry.
Negative mood 4:	I felt unpleasant.
Positive mood 3:	I felt happy.
Negative mood 5:	I felt sad.

Appendix 2

Interaction Anxiousness Scale
(Leary, 1983a)

Indicate how characteristic each of the following statements is of you according to the following scale:

1 = Not at all characteristic of me.
2 = Slightly characteristic of me.
3 = Moderately characteristic of me.
4 = Very characteristic of me.
5 = Extremely characteristic of me.

_____ 1. I often feel nervous even in casual get-togethers.
_____ 2. I usually feel comfortable when I'm in a group of people I don't know.
_____ 3. I am usually at ease when speaking to a member of the other sex.
_____ 4. I get nervous when I must talk to a teacher or a boss.
_____ 5. Parties often make me feel anxious and uncomfortable.
_____ 6. I am probably less shy in social interactions than most people.
_____ 7. I sometimes feel tense when talking to people of my own sex if I don't know them very well.
_____ 8. I would be nervous if I was being interviewed for a job.
_____ 9. I wish I had more confidence in social situations.
_____ 10. I seldom feel anxious in social situations.
_____ 11. In general, I am a shy person.
_____ 12. I often feel nervous when talking to an attractive member of the opposite sex.
_____ 13. I often feel nervous when calling someone I don't know very well on the telephone.
_____ 14. I get nervous when I speak to someone in a position of authority.
_____ 15. I usually feel relaxed around other people, even people who are quite different from me.

Appendix 3

Brief Fear of Negative Evaluation Scale
Leary (1983b)

Read each of the following statements carefully and indicate how characteristic it is of you according to the following scale:

1 = Not at all characteristic of me
2 = Slightly characteristic of me
3 = Moderately characteristic of me
4 = Very characteristic of me
5 = Extremely characteristic of me

_____ 1. I worry about what other people will think of me even when I know it doesn't make any difference.
_____ 2. I am unconcerned even if I know people are forming an unfavorable impression of me.
_____ 3. I am frequently afraid of other people noticing my shortcomings.
_____ 4. I rarely worry about what kind of impression I am making on someone.
_____ 5. I am afraid others will not approve of me.
_____ 6. I am afraid that people will find fault with me.
_____ 7. Other people's opinions of me do not bother me.
_____ 8. When I am talking to someone, I worry about what they may be thinking about me.
_____ 9. I am usually worried about what kind of impression I make.
_____ 10. If I know someone is judging me, it has little effect on me.
_____ 11. Sometimes I think I am too concerned with what other people think of me.
_____ 12. I often worry that I will say or do the wrong things.

Appendix 4

"Getting-to-know-you" Questions
(Sedikides, Campbell, Reader, & Elliot, 1999)

Question Set 1

- What year are you at the University of X?
- What do you think you might major in? Why?
- What made you come to the University of X?
- What is your favorite class at the University of X? Why?
- What would you like to do after graduating from the University of X?
- What is one strange thing that has happened to you since you've been at the University of X?
- What is one embarrassing thing that has happened to you since arriving at University of X?
- What is one recent accomplishment that you are proud of?

Question Set 2

- What are your hobbies?
- What would be the perfect lifestyle for you?
- What is something you have always wanted to do but probably never will be able to do?
- If you could travel anywhere in the world, where would you go and why?
- If you could change one thing about yourself, what would that be?
- What is one habit you'd like to break?
- If you could have one wish granted, what would that be?
- What is one thing about yourself that most people would consider surprising?