Social Anxiety, Observed Performance, and Perceived Social Competencies in Late-Adolescent Friendships

Brittany N. Kuder and Rachel L. Grover*
Loyola University Maryland

ABSTRACT. The functioning of socially anxious college students in friendships is surprisingly unexplored, given the prevalence and severity of psychopathology as well as the importance of close social relationships at this developmental stage. The current study sought to examine the perceived social competencies of socially anxious late adolescents and their observable behavior in conversation with friends. A sample of 54 undergraduate students completed the Social Anxiety Scale for Adolescents (SAS-A; La Greca & Lopez, 1998) and the Interpersonal Competence Questionnaire (ICQ; Buhrmester, Furman, Wittenberg, & Reis, 1988). In addition, each was videotaped in a 10 min conversation with a friend, and coders rated each interaction using the Social Performance Rating Scale (SPRS; Fydrich, Chambless, Perry, Buergener, & Beazley, 1998). General social anxiety (Total SAS-A) scores were significantly negatively correlated with perceived general interpersonal competencies ($r = -.51$, $p < .001$), comfort ($r = -.27$, $p = .05$), and length ($r = -.34$, $p = .01$), such that those with higher social anxiety reported lower competencies in social situations and displayed less comfort and either very short or very long talking turns. Theoretical and practical implications of the findings are discussed.

Social anxiety, discernible by overwhelming worry and self-consciousness in social situations, may reduce quality of life and impair the ability to fulfill daily living responsibilities, achieve educational goals, operate in the workplace, and function in both novel and everyday social situations (Stein & Kean, 2000). Even individuals with subthreshold forms of social anxiety may experience many of these functional impairments (Dell’Osso et al., 2003). Recent estimates rank social anxiety as the second most common psychiatric disorder, with a 12-month prevalence of 6.8% (Kessler, Chiu, Demler, & Walters, 2005) and a lifetime prevalence of 12.1% (Kessler, Berglund et al., 2005). Social anxiety proves to be both a serious and common issue, especially because few community members seek treatment and are thus left unaccounted in these statistics (Stein, Torgrud, & Walker, 2000).

The severity of social anxiety is further underscored by its early typical age of onset, in early to middle adolescence (Mannuzza, Fyer, Liebowitz, & Klein, 1990). Of the estimated 17 million U.S. adults who suffer from social anxiety, 75% of them developed social anxiety by the age of 15, and 90% of them by the age of 23 (Kessler, Berglund et al., 2005). Adolescence is a particularly vulnerable time for social anxiety due to increases in social demands and heightened fears of negative social evaluations (Westenberg, Gullone, Bokhorst, Heyne, & King, 2007). For the first time, most adolescents begin to spend more time with peers than with their parents (Crosnoe, 2000). To cope with their anxiety, socially anxious adolescents may withdraw from social interactions, thus limiting their social contact at a time when close friendships are of increasing importance to development (Kingery, Erdley, Marshall, Whitaker, & Reuter, 2010).
Compared to their nonanxious peers, socially anxious teens report greater difficulties in cultivating intimacy and companionship in their friendships (Vernberg, Abwender, Ewell, & Beery, 1992), lower levels of peer acceptance and support (La Greca & Lopez, 1998) and more negative treatment by classmates (Blote, Duvekot, Schalk, Tuinenburg, & Westenberg, 2010). Negative social experiences such as these likely reinforce anxious behavior, deterring or disabling those with social anxiety from behaving more successfully in social interactions (Rapee & Heimberg, 1997).

Because socially anxious adolescents are often shy and behaviorally inhibited, even those who have built and sustained friendships are vulnerable to reductions in social support when changes in their lives occur. Life transitions often disrupt friendships, a significant repercussion considering the protective function of social support during stressful times (Norris & Kaniasty, 1996). Among the most difficult transitions to negotiate is that of young adults to college life, particularly in their first year of study (Giddan, 1988). Relocated youth with social anxiety, such as those leaving their parents’ homes to attend college, often withdraw from relationships, resulting in lower companionship and intimacy in their friendships (Biggs, Vernberg, & Wu, 2011). In their new environments, students encounter a greater number and diversity of social interactions, leading to greater uncertainty concerning appropriate behaviors (Thompson & Rapee, 2002). Additionally, they must adapt to greater independence and responsibility, while adjusting to changes not only in their friendship networks but also in their living arrangements, academic environments, and divisions of time. In the most recent National College Health Assessment conducted by the American College Health Association (2012), 11.2% of college students surveyed disclosed having been diagnosed as having an anxiety disorder, 64.9% reported having experienced overwhelming anxiety within the preceding 12 months, and 44.1% indicated that anxiety had, at some point in their college education, affected their academic performance.

The development of new, close–college friendships, as well as the competencies to initiate and strengthen those friendships, are integral to students’ well-being (Emmons & Diener, 1986). Precollege friendships often diminish in quality and quantity within students’ first year of college, requiring them to find new sources of social support (Oswald & Clark, 2003; Shaver, Furman, & Buhrmester, 1985). Students’ sociability strongly relates to life satisfaction (Emmons & Diener, 1986) and to academic achievement (Hojat, Vogel, Zeleznik, & Borenstein, 1988). In addition to unhappiness and academic struggles, failure to develop new friendships can result in a state of persistent loneliness (Asendorp, 2000) and friendlessness, the “preoccupation with and concern for the loss of or change in precollege friendships,” which relates to social concerns, poor self-esteem, and discrepancies between expectations of social situations and the actual experiences of those situations (Paul & Brier, 2001, p. 77).

In addressing the social difficulties faced by socially anxious persons, it is important to identify the factors contributing to these struggles. Theorists have historically attributed the problems of socially anxious individuals to behavioral deficiencies that elicit the negative reactions of others, leaving them feeling punished by the demands of certain social situations and consequently overcome with anxiety (e.g., Curran, 1977). Yet the behavioral assessment of social performance in socially anxious individuals has returned mixed results: some studies have found socially anxious participants to perform significantly worse on individual behaviors as well as global measures (e.g., Twentyman & McFall, 1975), but others have found them to perform worse only on global measures (e.g., Beidel, Turner, & Dancu, 1985), and others have not found significant differences between the behaviors of socially anxious participants and nonanxious participants (e.g., Rapee & Lim, 1992).

Furthermore, the ability of socially anxious persons to demonstrate appropriate and successful social behaviors may depend upon the demands of the social situation in which they are studied. Observers do not rate socially anxious and nonanxious participants’ public speaking performances differently, but participants with social anxiety rate their performances significantly worse than do nonanxious controls, such that there is a significantly greater discrepancy between self and observer ratings for anxious individuals than for controls (Alden & Wallace, 1995; Rapee & Lim, 1992; Voncken & Bogels, 2008). Socially anxious participants also underestimate their performances in videotaped conversations with a confederate more so than nonanxious participants, although they do receive significantly lower observer performance ratings than nonanxious participants (Stopa & Clark, 1993; Voncken & Bogels, 2008).

Findings of socially anxious persons’ inaccurate
perceptions influenced the development of new models of social anxiety that emphasize the role of cognitions in influencing behavior. Recent cognitive models (notably, Clark & Wells, 1995; Rapee & Heimberg, 1997) suggest that those with social anxiety have distorted perceptions of their social competencies, and multiple studies have indeed shown that socially anxious individuals underestimate the successfulness of their performances in various situations (Alden & Wallace, 1995; Rapee & Lim, 1992; Stopa & Clark, 1993; Voncken & Bogels, 2008). In contrast with traditional conceptualizations of social anxiety that emphasized deficient social skills (e.g., Curran, 1977), these cognitive models proposed that cognitions intended to reduce anxiety lead to the adoption of safety and avoidance behaviors that are received negatively and rated as unsuccessful by others (Clark & Wells, 1995; Rapee & Heimberg, 1997). For example, individuals with social anxiety may speak in brief utterances not because they think that such is the most acceptable and successful mode of behavior, but in order to avoid saying something judged to be unacceptable or unfitting.

In both speech and conversation situations, socially anxious participants perceive themselves as having performance deficits, but performance deficits are only observed in conversation scenarios (Alden & Wallace, 1995; Rapee & Lim, 1992; Stopa & Clark, 1993; Voncken & Bogels, 2008). Yet performance has previously been observed in conversation scenarios when the conversation partner is a stranger (e.g., Voncken & Bogels, 2008). Studying whether socially anxious individuals perform worse and perceive themselves as performing worse in conversations with friends may help to illustrate the effects of social anxiety on the friendships and overall well-being of late adolescents attending college. The present study begins to address this gap in the literature by comparing the observed performance of socially anxious individuals in conversations with friends to that of nonanxious individuals in order to investigate if socially anxious participants display performance deficits in this particular scenario. In consideration of previous findings that socially anxious persons display significant performance deficits in conversation scenarios (Stopa & Clark, 1993; Voncken & Bogels, 2008), we hypothesized that those with higher social anxiety would indeed perform worse in conversation with a friend than would those with lower social anxiety.

Socially anxious individuals have been shown to report inaccurate perceptions of their social competencies (Alden & Wallace, 1995; Rapee & Lim, 1992; Stopa & Clark, 1993; Voncken & Bogels, 2008), which are thought to contribute to anxiety and thwart social performance (Clark & Wells, 1995; Rapee & Heimberg, 1997). As such, we hypothesized that those with higher levels of social anxiety would perceive and report lower competencies than their nonanxious counterparts. Additionally, we anticipated that there would be a significant relation between perceived social competence and observed social performance in conversations with a friend such that those with lower perceived competence would display less successful behaviors during the video-taped conversation task.

**Method**

**Participants**

Participants volunteered for the study by registering on a psychology department research portal over the span of one academic year. At the study’s completion, they received credit in introductory psychology courses as compensation. The group of 54 participants was comprised of 16 men and 38 women between the ages of 18 and 21 (M = 18.65, SD = 0.78) recruited through convenience sampling in a Mid-Atlantic Jesuit university’s psychology department. Although this mean age is not representative of late adolescents, it does well represent traditional, first-year college students with whom we are particularly interested as they navigate major life transitions and new social landscapes (Giddan, 1988). No selection criteria were included beyond participants fitting into the age range of 18 to 21 years and holding current college enrollment. Participants were primarily White (85%, n = 46), 7% (n = 4) were Asian/Pacific Islander, 6% (n = 3) were Hispanic, and 2% (n = 1) were Black. All participants gave written consent to participate in both the online survey and videotaped conversation portions of the study. IRB approval was obtained prior to recruitment.

**Measures**

As a part of a larger study investigating the link between young adults’ psychopathology and social relationships, four measures pertinent to the current study’s objectives were administered. **Demographic questionnaire.** Participants completed a demographic questionnaire that asked about their sex, age, and race. **Social anxiety.** The Social Anxiety Scale for
Adolescents (SAS-A; La Greca & Lopez, 1998) was used to evaluate self-reported social anxiety. Participants rated 22 statements (e.g., “I get nervous when I meet new people”) on a 5-point Likert-type scale, ranging from 1 (not at all) to 5 (all the time). Scores range from 18 to 90, with higher scores indicating higher social anxiety. In addition to an overall social anxiety score, the SAS-A provides three subscores: Fear of Negative Evaluation (FNE), Social Anxiety and Distress in New Situations (SAD-New), and Social Anxiety and Distress in General (General SAD).

The scale’s title reveals that it was intended to be used with adolescent populations. Our student participants, averaging 18.65 years, can be classified as late adolescents (La Greca & Lopez, 1998). Although the psychometric properties of the SAS-A have not been studied extensively in college populations, normative data have been found for high school populations with age ranges overlapping that of the current study (Inderbitzen-Nolan & Walters, 2000). Factor analyses support the SAS-A’s three-factor structure (Inderbitzen-Nolan & Walters, 2000; La Greca & Lopez, 1998), and several studies (e.g., Glickman & La Greca, 2004; Inderbitzen-Nolan & Walters, 2000) have reported finding subscale internal consistencies similar to those found by La Greca and Lopez (1998): .91 (FNE), .83 (SAD-New), .76 (General SAD). La Greca and Harrison (2005) reported an adequate internal consistency of .87 for the total SAS-A score. For the current study, we found internal consistencies of .93 (FNE), .90 (SAD-New), .86 (General SAD), and .95 (SAS-A Total). The SAS-A correlates with other indicators of anxiety, such as measures of social functioning (La Greca & Harrison, 2005; La Greca & Lopez, 1998), general anxiety (Inderbitzen & Walters, 2000), and dating anxiety (Glickman & La Greca, 2004), providing support for construct validity.

Social performance. The Social Performance Rating Scale (SPRS; Fydrich et al., 1998) is a rating system for the behavioral evaluation of social skills modified from earlier rating systems (Trower, Bryant, & Argyle, 1978; Turner, Beidel, Dancu, & Keys, 1986) to be used specifically in socially anxious populations. Evidence for good convergent, divergent, and criterion-related validity, as well as acceptable internal consistencies, have been found for the SPRS (Fydrich et al., 1998). Five behavioral indicators of anxiety are rated on independent, 5-point Likert-type scales: gaze, discomfort, vocal quality, length of contributions, and conversation flow. In the study at hand, the dimension of gaze was not rated due to visibility concerns, with some videotaped conversations lacking sufficient lighting to detect gaze. For the dimension of comfort, high ratings are given to those exhibiting natural body movements, appropriate laughing and smiling, effective gesturing, focused attention, and a relaxed posture. Ratings of good vocal quality are given to those who speak clearly in appropriate volumes, have nonintrusive and nonsarcastic tones, and are “warm and enthusiastic in verbal expression without sounding condescending or gushy” (Fydrich et al., 1998, p. 1007). Those who acknowledge their partners’ remarks without monopolizing the conversation nor speaking in very short statements receive ratings of good length, and those who eloquently initiate conversation topics, easily maintain the conversation, and fluidly respond to conversations breaks receive ratings of good conversation flow.

The raters were two undergraduate students who trained on the rating scale in the manner outlined by Fydrich et al. (1998) by viewing, rating, and discussing videotaped conversations until independent ratings consecutively varied by no more than one point on one dimension. All tapes were rated by one researcher, and 20% of the tapes were rated by the second to allow for inter-rater reliability analyses to be conducted. Excellent inter-rater reliability, in the form of intraclass correlations, were found for the rating scale, ranging from .94 (discomfort) to .95 (length) to 1.00 (vocal quality; conversation flow). Raters were blind to participants’ demographic information and performance on all other study measures.

Interpersonal competence. The Interpersonal Competence Questionnaire (ICQ; Buhrmester et al., 1988) includes 40 items that evaluate the following five domains of competence integral to close relationships: initiating relationships, self-disclosure, providing emotional support, negative assertion (i.e., asserting displeasure with others), and conflict management. Buhrmester et al. (1988) developed the ICQ to assess specifically the competence of college students in close friendships and romantic relationships. Following each of the questionnaire’s items (e.g., “Introducing yourself to someone you might like to get to know or date,” “Turning down a request by a companion that is unreasonable”) is a set of lines upon which participants rate their perceptions of their own competencies and comfort levels in the company of, respectively, a same-sex friend and different-sex
friend/romantic partner. The current study incorporated perceptions of competencies with regards to close same-sex friendships. Ratings range from 1 (Poor at this; would be so uncomfortable and unable to handle this situation that it would be avoided if possible) to 5 (Extremely good at this; would feel very comfortable and could handle this situation very well). Individual competency scores are found by summing subscale items, and overall ICQ scores are achieved by summing all 40 items. Analyses of the ICQ have demonstrated the reliability and good fit of the measure’s 5-scale structure as well as its correlation with theoretically related variables (Buhrmester, 1990; Buhrmester et al., 1988). For the study at hand, the following internal consistencies were found for the ICQ and its subscales: .95 (ICQ Total), .88 (initiating relationships), .85 (self-disclosure), .88 (emotional support), .87 (negative assertion), and .84 (conflict management).

Procedure
Participants engaged in a videotaped conversation with a friend of their choice after being led to a room with two armchairs. They were instructed to discuss something that they would like to change about themselves with their friends for 10 min. The friends were told to respond to the conversation as they would typically respond. Friend pairs were left alone in the room with the video camera, and a research assistant returned to the room after 10 min to dismiss them. At a time of their choosing, participants later completed a survey that included the demographic questionnaire, SAS-A, and ICQ, in that order, on an online survey program. Both the participant and the friend gave informed consent to participate, and were debriefed and thanked for their time.

Results
Means for the three subscales of the SAS-A, as well as those for social performance ratings and reported social competencies, are presented in Table 1. Analysis of the SAS-A indicated that 48.1% (n = 26) of the 54 participants were classified as having significant social anxiety, using an SAS-A total score of 44 as a cut-off (La Greca & Lopez, 1998). Although observed performance ratings ranged from either 1 (length, conversation flow) or 2 (discomfort, vocal quality) to 5 for each dimension, average ratings for each dimension ranged between 4 and 5, indicating that most comfort levels were either high or very high, and that most vocal qualities, lengths, and conversation flows were either good or very good. Average competency scores ranged from 28.35 (negative assertion) to 32.96 (emotional support), with standard deviations similar to those of nonclinical samples found in initial investigations of the ICQ’s friend scale (e.g., Buhrmester et al., 1988) as well as in more recent reviews of the measure (e.g., Davila et al., 2009).

Pearson correlations were computed to determine if social anxiety related to ratings of observed performance and perceptions of social competencies in college students (Table 2). General social anxiety (Total SAS-A) scores were significantly negatively correlated with two of the four observed social performance behaviors: comfort (r = -.27, p = .05) and length (r = -.34, p = .01), such that those with higher social anxiety displayed less comfort and either very short or very long talking turns. Additionally, SAS-A subscale scores were found to have significant relationships with these observed nonverbal behaviors. Higher SAD-New scores were associated with lower ratings of comfort (r = -.31, p = .03), length (r = -.34, p = .01), and conversation flow (r = -.27, p = .05). Higher FNE scores related to lower length ratings as well (r = -.29, p = .03).

SAS-A scores were also related to perceptions of social competencies. Total SAS-A scores were significantly negatively correlated with perceived general interpersonal competencies (r = -.51, p

### Table 1

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<tr>
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<td>30.22 (4.53)</td>
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Note. Rs range from 50 to 54 due to occasional missing data.
Social Anxiety and Observed Performance

Results supported the hypotheses. Behaviors in conversations with friends. In general, competencies would be positively related to observed social competencies, and that perceived social competence would be negatively related to observed behaviors in conversations, that social anxiety would be negatively related to college students. Three hypotheses were explored: interpersonal competencies in late-adolescent social anxiety, observed nonverbal behaviors in conversations, and negative assertion (p = .03). SAD scores were negatively correlated with perceived general interpersonal competencies (r = -.57, p < .001) and those of initiating relationships (r = -.45, p = .002) and negative assertion (r = -.44, p = .002; r = -.46, p = .001). SAD-New scores were significantly associated with perceived general interpersonal competencies (r = -.57, p < .001) and those of initiating relationships (r = -.63, p < .001), emotional support (r = -.32, p = .03), negative assertion (r = -.51, p < .001), and conflict management (r = -.30, p = .04).

Relationships between perceptions of social competencies and observed performance ratings were examined next, and lower perceptions of competencies were found to relate to lower observed performance ratings. Participants perceiving themselves as having greater general interpersonal competencies also had higher ratings of comfort (r = .33, p = .03) and vocal quality (r = .34, p = .03). Perceptions of greater initiating relationships competencies were associated with higher ratings of comfort (r = .40, p = .01), vocal quality (r = .38, p = .01), and conversation flow (r = .33, p = .03). Perceptions of greater emotional support competencies were likewise correlated with higher ratings of comfort (r = .33, p = .03), vocal quality (r = .32, p = .03), and conversation flow (r = .34, p = .02), and those of greater negative assertion competencies were associated with higher ratings of comfort (r = .32, p = .03) and vocal quality (r = .33, p = .03).

Discussion

This study investigated the relationships among social anxiety, observed nonverbal behaviors in a conversation with a close friend, and perceived interpersonal competencies in late-adolescent college students. Three hypotheses were explored: that social anxiety would be negatively related to observed behaviors in conversations, that social anxiety would be negatively related to perceived social competencies, and that perceived social competencies would be positively related to observed behaviors in conversations with friends. In general, results supported the hypotheses.

Social Anxiety and Observed Performance

Overall, higher social anxiety related to lower performance ratings of observed behavior in conversations with friends, supporting the findings of previous studies that socially anxious persons perform worse in social interactions compared to nonanxious participants (Baker & Edelmann, 2002; Fydrich et al., 1998; Thompson & Rapee, 2002; Voncken & Bogels, 2008). Additionally, analyses demonstrated high intercorrelations among the different behaviors of the SPRS, maintaining Fydrich et al.’s (1998) proposition that socially anxious individuals consistently exhibit overall poor social performance rather than “discrete skills deficits” (p. 1005). It should not be overlooked that a halo effect influencing the observers’ ratings could explain these intercorrelations (e.g., an observer noticing a participant’s displayed nonverbal behavior and giving high ratings on the other measures). Yet the significant relationships between certain social behaviors and certain perceived competencies demonstrate that participants receiving low performance ratings also perceive themselves as having lower social competencies, suggesting an interplay between cognitive and behavioral variables as hypothesized in cognitive models of social anxiety (Clark & Wells, 1995; Rapee & Heimberg, 1997) and found in previous studies of social performance correlates (Halford & Foddy, 1982).

TABLE 2

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<td>Conflict Management</td>
<td>-.20*</td>
<td>-.07</td>
<td>-.30*</td>
<td>-.23</td>
<td>.11</td>
<td>.18</td>
<td>-.08</td>
<td>.02</td>
<td>.83*</td>
<td>.63**</td>
<td>.69**</td>
<td>.67**</td>
<td>.61**</td>
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</tbody>
</table>

Specifically, participants who reported higher levels of social anxiety were observed to appear less comfortable (e.g., fidgeting), speak either more excessively or briefly, and maintain the conversation flow less effectively in a conversation with a friend. Previous findings of discomfort levels distinguishing socially anxious individuals from both anxious and nonanxious controls (Baker & Edelmann, 2002; Fydrich et al., 1998) lend support that those with social anxiety often behave differently in social situations through their use of body movements perceived as nervous, excessive, or contextually inappropriate by others. Socially anxious persons demonstrated conversation turns either so long as to prevent discourse or incredibly short with very long pauses, coinciding with findings that socially anxious individuals speak more excessively (Dow, 1985), pause more frequently (Dow, 1985; Hofmann, Gerlach, Wender, & Roth, 1997) and wait longer until their first utterance in conversations (Thompson & Rapee, 2002). Individuals may adopt pausing as a safety behavior to contemplate what is appropriate to say and reduce the risk of making statements judged to be inadequate (Thompson & Rapee, 2002). Stevens et al. (2010) indeed found shorter talking time to significantly correlate with observers’ ratings of safety behaviors. The tendency for participants with high SAD-New scores to less effectively respond to conversational cues and relate with partners may be explained by their cognitive load: if they were significantly distressed by a new situation, they might have had less attention available to focus on the demands of the social situation and interact successfully with their friends (Rapee & Heimberg, 1997). Surprisingly, vocal quality was not found to be related to any anxiety score, suggesting that tone and volume may be less affected by social anxiety levels than other nonverbal factors. Nonetheless, these distinct nonverbal behaviors often exhibited by socially anxious late adolescents in conversations may interfere with their abilities to effectively communicate with their friends and, thus, build intimacy and gain support.

Social Anxiety and Perceived Social Competencies

Participants reporting high social anxiety generally perceived themselves as being less socially competent than those reporting low social anxiety. Regardless of the successfulness of their social performances, those with social anxiety often think that their anxiety can be seen by others and believe that this causes others to perceive them more negatively (Jones & Briggs, 1984). Social anxiety’s significant relationships with perceptions of interpersonal competence underscore the possibility of a broad cognitive component interfering with social performance and affecting social relationships. Specifically, perceptions of general interpersonal competence and of competencies for initiating relationships and negative assertion correlated with all four social anxiety scores (Total SAS-A, FNE, SAD-New, General SAD). These findings indicate that two of the greatest perceived difficulties for socially anxious individuals, for which they experience the most discomfort and doubt their abilities the most, are initiating relationships and asserting displeasure with others, which are also two social situations often avoided by people (SAD-New) and in which people are quite susceptible to negative feedback (FNE). Being socially unskilled or perceiving one’s self to be socially unskilled in the arena of initiating relationships is likely to negatively impact those entering the new social landscape of young adulthood, where the formation of new relationships relates to academic achievement (Hojat et al., 1988), greater self-esteem (Paul & Brier, 2001), and greater life satisfaction (Emmons & Diener, 1986). Late-adolescent college students who identify attractive and compatible peers but perceive themselves to not possess the competency to initiate relationships may miss out on rewarding friendships, just as those who perceive low competencies in asserting displeasure may be engaged in suboptimal friendships.

Perceived Social Competencies and Observed Performance

As hypothesized, participants with perceptions of lower competencies were observed as performing less successfully in their conversations with friends than those perceiving high competencies. Those who perceived themselves as having low social competencies were rated by others as exhibiting lower levels of comfort, poorer conversation flow, and poorer vocal qualities, marked by inappropriate volumes and less pleasant tones. These findings indicate that socially anxious late adolescents may exhibit performance deficits rather than distorted perceptions of performance in conversations with friends, supporting Voncken and Bogels’s (2008) theory of socially anxious individuals’ behaviors being explained by performance deficits in situations requiring interpersonal skills (e.g., conversations) and by distorted perceptions of
performance in situations requiring performance skills (e.g., public speaking). Length ratings, however, were not found to significantly correlate with any competency, proposing that talking turn lengths are influenced more by anxiety or other factors separate from perceptions of competencies.

As the current study has shown, negative cognitions, particularly with relation to perceptions of low interpersonal competencies, are often paired with socially inadequate behaviors. A recent model of the maintaining factors of social anxiety disorder (Hofmann, 2007), drawing upon the theory of reciprocal determinism (Bandura, 1978), proposes those with social anxiety are nervous in social situations because they perceive the social standard to be too high for them to meet. Socially anxious persons want to impress others but doubt their ability to do so, effecting heightened self-focused attention that leads to negative self-perceptions, such as the appraisal of one’s self possessing poor social skills. These negative cognitive processes exaggerate the likelihood of social failure and thus lead to avoidance and safety behaviors (e.g., pausing in conversation to consider what to say). Attempts to restructure cognitions to be more realistic may enable college students to behave more successfully in their friendships and thereby better enjoy friendships in both greater quantity and quality.

Limitations
As with most research conducted at universities, a limitation of this study is the homogeneity of the sample, making it unclear if the current results can be generalized to other populations. In addition, such sample homogeneity may be associated with the obtained restriction of range of values for some study variables; for example, the different behaviors of the SPRS had standard deviations of less than one point on the rating scale. Nonetheless, it is encouraging that significant relations were obtained despite the somewhat restricted range on some variables. It is also possible that the self-report measures (i.e., the SAS-A and ICQ) were affected by social desirability, which can distort the manner by which participants respond to measures such that they may underreport their anxiety levels or bolster their competence levels in order to minimize their problems. However, results of the study at hand found correspondence between the ICQ and SPRS, which lends validity to using self-report measures of social competence with socially anxious samples.

Future Directions
It is important to note that the SPRS was previously evaluated only by highly trained graduate students and mental health professionals, and for social performances with conversation partners with whom participants were not well acquainted. In response to Monti et al.’s (1984) advocacy for mid-level behavioral assessment, the measure was designed as a rating scale, which is less straightforward to utilize than a micro level assessment using frequency counts and duration of specified behaviors. Accordingly, Fydrich et al. (1998) questioned the ability of less highly trained raters to use the rating scale and to distinguish socially anxious participants from nonanxious ones in various situations, such as the conversation with friend scenario used in the present study. The significant results of this study demonstrate that raters with less experience are able to effectively use the SPRS, and that the SPRS can be useful in different contexts. A few suggestions can be made for avenues of future research. The relationships found in this study were correlational. Experimental research aiming to make cognitions more realistic and behaviors more successful could expound causal relationships, which would inform understanding of the maintaining factors of social anxiety and thereby facilitate the development of effective prevention and intervention models. Additionally, this study did not account for different levels of intimacy within friendships, which should be examined in future studies. Finally, this study’s participants were primarily undergraduate students in their first and second semesters of college. A longitudinal study might assess the social anxiety, observed behaviors, and perceived competencies of students in their first year of college and later in their fourth, in order to examine whether adjustment to college life lowers social anxiety, and also whether students display more successful social performance behaviors and perceive themselves as having greater interpersonal competencies after becoming adjusted to college.

Conclusions
Voncken and Bogels (2008) have proposed that those with social anxiety demonstrate more actual performance deficits in situations requiring more interpersonal skills, although they reveal more cognitive distortions in situations requiring more performance skills. Cognitive theorists describe this variance in social performance across situations as explained by either safety behaviors (Clark & Wells,
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understand their new social landscapes facilitating levels of social anxiety. Such services would help implemented and services offered in educational services or friendship quality. Programs should be predictable improvement in overall social competencies if altering these verbal and nonverbal behaviors lengths. Future research is necessary to determine encouraging the client to expand upon her ideas interest in the conversation and in her friend. The social confidence (Herbert et al., 2005; Turner, Beidel, Cooley, Woody, & Messer, 1994). Observed behaviors associated with social anxiety and rated to be socially unsuccessful may be used to guide interventions for improved interpersonal processes. Clinicians may attempt to adjust certain behaviors (e.g., length) by identifying their performance, discussing the value of more successful behaviors, and introducing ways by which the client can work on adopting more successful behaviors. For instance, a clinician treating a socially anxious client who frequently responds to friends with brief utterances may reveal to the client how her shortness makes it difficult for her to build intimacy with her friend and does not communicate interest in the conversation and in her friend. The clinician might role-play conversation scenarios, encouraging the client to expand upon her ideas as necessary and modeling responses of adequate lengths. Future research is necessary to determine if altering these verbal and nonverbal behaviors predicts improvement in overall social competencies or friendship quality. Programs should be implemented and services offered in educational and mental health settings to bolster perceptions of interpersonal competencies and assuage levels of social anxiety. Such services would help adolescents hone their interpersonal behaviors and understand their new social landscapes facilitating their experiences of more enjoyable and beneficial friendships.

References

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**Author Note.** Brittany N. Kuder, Department of Psychology, Loyola University Maryland; Rachel L. Grover, Department of Psychology, Loyola University Maryland.

Brittany N. Kuder is now at Department of Education and Human Services, Lehigh University.

Correspondence about this article should be addressed to Brittany Kuder, Department of Education and Human Services, Lehigh University, Bethlehem, PA 18015. Contact: bk213@lehigh.edu