Social Skills among Socially Anxious Children in Iceland

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(ABSTRACT)

The primary purpose of this study was to examine the nature of social skills in socially anxious children from a social learning theory perspective. The reasons why socially anxious children often perform poorly in social situations have not yet been fully resolved. Is it due to lack of social skills or are these children too inhibited and nervous in social situations to exhibit the skills they possess? Ninety-two elementary and middle school children (age 10-14 years) in Kopavogur, Iceland participated in the study and completed questionnaires on social phobia and anxiety, social skills, assertiveness, and self-efficacy and outcome expectancy in social situations with friends and strangers. Based on how socially anxious they reported to be on the Social Phobia and Anxiety Inventory for Children (SPAI-C), 59 children were selected for further study. Results showed that socially anxious children reported being less socially skilled, less assertive with strangers than with friends, and lower in self-efficacy and outcome expectancy than children in a normal comparison group. However, the socially anxious children were not rated as less skilled by parents or teachers than the other children. Implications for the assessment and treatment of children and adolescents with social anxiety are discussed.

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1. Introduction

Most people believe that childhood is a time of enjoyment, insouciance, and playing with and making new friends. However, for some children, making friends and interacting with other children causes extreme distress and worry. A child who experiences this kind of distress when interacting with other children or adults might be suffering from social anxiety disorder (American Psychiatric Association, 2000). Children who suffer from social anxiety have persistent and irrational fears of social or performance situations in which they fear they might do something that will embarrass or humiliate them. Although they frequently want to interact with other children, they try to avoid most social and performance situations as a consequence of their fears (Silverman & Ginsburg, 1998). In effect, their anxiety interferes with their everyday life and prevents them from enjoying activities with friends and classmates.

It has been estimated that about 3% to 4% of children suffer from social anxiety disorder (Beidel, Turner, & Morris, 1999) and the average age of onset is approximately 12 years of age (Strauss & Last, 1993). However, the prevalence of social phobia among children may be higher than these rates suggest. Because these children are often withdrawn, cooperative, and compliant at school and at home, their disorder may go unnoticed for a long period of time. It is highly unlikely that such children will be brought in for assessment and treatment if their parents or teachers are not aware that they are experiencing social problems.

1.1. Social Learning Theory

Social anxiety and social skills do not develop in a vacuum. From early on, expectations and beliefs affect children's motivation to exhibit behavior that is likely to produce desired outcomes (Bandura, 1997). In his Social Learning Theory, Bandura (1977) states that there is a reciprocal relationship between behavioral, cognitive, and environmental influences. Children who observe others obtain desired outcomes as a result of a specific action are likely to imitate the action. If their behavior results in a desired outcome, children are more likely to show it again later. Children's sense of efficacy in the situation will also increase if they are successful in bringing about the desired outcome (Bandura, 1978). This feedback from the environment therefore influences children's expectancies and beliefs which, in turn, influence future behavior and motivation to exhibit certain behaviors. However, if their behavior brings about undesired outcomes, they are less likely to exhibit the behavior again and their sense of efficacy will decrease due to perceived failure in these situations. In this sense, a reciprocal system is put in place and perceived self-efficacy obtains a causal role in determining behavior (Bandura, 1997; Bandura, Caprara, Barbaranelli, Pastorelli, & Reagalia, 2001).

As children begin to interact with peers, this process starts to unfold and they develop beliefs about their ability to bring about certain outcomes in social interactions. Children may experience different levels of anxiety when interacting with others and the anxiety may affect their performance in the situation. Although the developmental trajectory of social anxiety has not yet been fully determined, various findings have indicated that certain temperamental characteristics, such as behavioral inhibition, may

make some children more susceptible to experience anxiety in social situations (Ollendick & Hirshfeld-Becker, 2002; Turner, Beidel, & Wolff, 1996). The children who do experience anxiety may therefore be less successful at bringing about desired outcomes due to performance inhibition. If they are not successful, they will receive little positive feedback, or even negative feedback, from the environment. Such outcomes will reduce the chances of children exposing themselves to similar social situations in the future. The avoidance will then lead to increased anxiety and even less chance of succeeding in social interactions, which will decrease their self-efficacy even further. A reciprocal cycle is therefore put in place, where social anxiety leads to avoidance of social situations and decreased self-efficacy and outcome expectancy.

1.2. Research on social skills among socially anxious children

Research on both adult and child social anxiety disorder has been aimed mostly at examining why socially anxious people are behaviorally inhibited in social situations. Two primary hypotheses have been put forth: 1) they lack the social skills needed to effectively interact with other people, or 2) they have the skills but are overly concerned about their performance and therefore do not exhibit their skills in social situations (Cartwright-Hatton, Hodges, & Porter, 2003).

Before discussing various research studies on social skills, it is necessary to clarify just what constitutes social skills. Although there has not been a clear consensus on the definition of social skills most people agree that social skills are a set of behaviors and characteristics that enable people to interact successfully with other people in social situations (Stravynski & Amado, 2001). Some researchers (e.g., Curran, 1979) prefer to

define social skills operationally, that is by the essential elements or components of skillful performance. These elements may be eye contact, appropriate content of speech, reciprocity, and so forth (see Stravynski & Amado, 2001). Other researchers (e.g., Matson & Ollendick, 1988) invoke a more molar or general definition. They define a socially skilled person as someone who can adapt well to his or her environment and who can avoid unnecessary conflict when interacting with others. This lack of a consensus on the definition of social skills obviously poses problems for comparing different results of research on social skills.

Several studies with socially anxious adults have shown that they are often evaluated to be less socially skilled than people who are not socially anxious. For example, Baker and Edelmann (2002) found that people with social anxiety exhibited less eye contact while talking to another person, more manipulative gestures, and an overall less adequate social performance when compared to clinical controls with other anxiety disorders or non-clinical controls. Also, Alden and Wallace (1995) found that socially anxious adults were rated as less warm and less likable than non-anxious adults when conversing with either a friendly or a strange confederate.

Research findings showing that socially anxious adults tend to exhibit poor social skills raise the question of whether socially anxious children also exhibit social skills deficits in their social interactions. If a skill deficit is prevalent among socially anxious children, it could be argued that this deficit may lead to the development of social anxiety disorder. However, if a skill deficit is not found among socially anxious children, it could be argued that socially anxious children fail to exhibit social skills as a consequence of

the social anxiety they experience and the "deficit" may in fact be due to avoidance and lack of practice in social situations, rather than a skill deficit per se.

Although research on the social skills of socially anxious children is limited, the results of the few studies that have been undertaken are mixed. Spence, Donovan, and Brechman-Toussaint (1999) examined social skills in a group of socially anxious elementary school children. The children were between 7 and 14 years of age and were clinically referred with a diagnosis of social anxiety disorder. The researchers administered a variety of social anxiety, social skills, and social cognition measures and found the socially anxious children to be less socially skilled than a matched control group. For example, the socially anxious children tended to respond with fewer words during a role-play task, interacted less with their peers at school, and initiated fewer social interactions with their peers than children in the control group. Beidel, Turner, and Morris (1999) obtained similar results when they assessed the social skills of clinically referred socially anxious children between 7 and 13 years of age. They found that during a reading task and a role-play task, the socially anxious children were evaluated as less interpersonally skilled and more anxious by objective judges.

However, Cartwright-Hatton, Hodges, and Porter (2003) obtained contrary results when they evaluated the social skills of non-referred but socially anxious children. When they asked 110 schoolchildren 8 to 11 years of age to give a short speech in front of a video camera, they found that social anxiety did not predict how socially skilled the children were rated by objective judges. In fact, they found that some children who reported to be extremely socially anxious were rated as highly socially skilled by the judges. In a recent follow-up study, Cartwright-Hatton, Tschernitz, and Gomersall (2005)

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investigated the role of beliefs in effective social interactions among 10 to 11 year old children. The results showed that the socially anxious children rated themselves as being less socially skilled on a conversation task than their low anxious counterparts. However, independent judges were unable to distinguish between the socially anxious and the low anxious children when evaluating their skill level. These findings stand in stark contrast to the findings of Spence et al. (1999) and Beidel et al. (1999).

1.3. The strain of interacting with strangers

It should be noted that the researchers mentioned above used various methods to evaluate the social skills of socially anxious children; moreover, none of them evaluated social skills in a non-stressful social situation. Most of them evaluated children in highly stressful conditions. For example, Spence et al. (1999) used a role-play task designed by Ollendick, Hart, and Francis (1985) in which the child was asked to role-play situations with an experimenter they had never met before. Spence and colleagues also observed the children in a classroom setting and on the school playground. In both of these situations, the child is embedded in a large group of other children and may have few opportunities to demonstrate certain social skills. Moreover, these situations are thought to be highly stressful for a child with social anxiety. In the Beidel et al. (1999) study, the children completed a reading task and a role-play task with a peer stranger. In the reading task, each child was asked to read out loud for 10 minutes in front of a group of two other children and one adult. Clearly this type of situation might be highly stressful for a socially anxious child and the performance might not reflect the true social skills of the child. In addition, Beidel et al. (1999) employed another task that required the socially

anxious children to role-play with a peer they had never met before. The distress of role-playing situations with a stranger might also be too stressful to allow the child to exhibit his or her true social skills. In the Cartwright-Hatton et al. (2003) study, the children were asked to give an impromptu speech in front of a video camera and were told it would later be watched by adults. Since performance in front of others is reported to be one of the most stressful social situations by socially anxious children (Beidel et al., 1999), the children may have been too nervous to exhibit whatever skills they may have had. If researchers only use methods that evaluate social skills in stressful situations, there is no direct way of differentiating between children who have a true social skills "deficit" and children who possess adequate social skills but do not exhibit them because they are too inhibited and nervous to do so. Based on these studies, it cannot be concluded that children who perform poorly under such diverse stressful social circumstances have a social skills "deficit".

1.4. Eliminating the stress of the situation

To be able to differentiate between children who have a social skill deficit and those who do not, it is necessary to compare how children perform when they are interacting with a stranger and when they are interacting with a friend. When interacting with a friend, they should be relaxed enough in the situation to be able to exhibit whatever social skills they possess. Thus far, no study has examined the social skills of socially anxious children by comparing their performance with a peer stranger and a friend.

In the field of developmental psychopathology, however, Asendorpf (1990) has shown that pre-school children are less inhibited when interacting with familiar peers than peer strangers. Each child in this study was randomly paired with a child from their pre-school group and an unknown child of the same age. The child was then observed in separate play settings with the familiar peer and the unfamiliar peer. Asendorpf measured the children's rate of interaction, rate of isolation, number of requests directed to the partner, latency until the first request, and the number of role initiations. Results showed that the children were less inhibited on all these measures when playing with the familiar peer than the unfamiliar peer. Based on these findings, it can be argued that since children may be less behaviorally inhibited when interacting with a familiar peer than with a peer stranger, socially anxious children (who are frequently behaviorally inhibited) will be less anxious when interacting with a friend than a stranger. If they are less anxious when interacting with a friend than a stranger, they, in turn, should have more opportunity to exhibit the social skills they possess. By comparing the social skills of socially anxious children when interacting with a peer stranger to their performance when interacting with a friend, it should be possible to rule upon the effects of performance inhibition on their social skills.

1.5. Self-efficacy and outcome expectancy of socially anxious children

As previously indicated, children may perform poorly in social situations because their perceived competence and self-efficacy is low. Self-efficacy can be defined as the perception that one is capable of doing what is necessary to reach one's goals. This entails both knowing what to do and being emotionally capable of doing it (Lahey, 2003).

If socially anxious children are doing poorly in stressful social situations they are more likely to receive negative feedback from the environment on their performance. Since people rely mostly on the environment to inform them if their behavior has been successful (Bandura, 1997), socially anxious children are expected to experience failure if they receive negative or little positive feedback from others. This would, in turn, lead them to have less self-efficacy and expect worse outcomes when they are faced with a similar situation again.

In fact, several studies have found that children who are socially anxious often view their performance in social situations negatively and are also more likely than other children to receive negative feedback from their peers. For example, Ollendick and Schmidt (1987) found that children's expectancy of outcome in social situations predicted positive and negative peer interactions as well as solitary play behavior. Spence et al. (1999) found that the children who were socially anxious expected their performance on both the role-play and reading tasks to be less successful than their non-anxious counterparts. However, results showed that the socially anxious children were just as successful on the reading task as the non-anxious children. It can therefore be concluded that socially anxious children's perception of their own ability on the reading task seemed to be distorted. Interestingly enough, these socially anxious children were also less likely than non-anxious children to receive positive responses from peers during their interactions. Even though it was not possible to differentiate between those children who had a social skill deficit and those who did not on the reading task in this study, the socially anxious children perceived their performance negatively and were seemingly less likely to obtain positive feedback from their environment.

Asendorpf (1990) found a similar effect in his study of behavioral inhibition. The children who were rejected or ignored by their peers developed expectations of being negatively evaluated by their peers and became increasingly inhibited when trying to initiate contact with their peers. It seems logical that these children would expect to perform poorly if they are not receiving positive feedback from their environment.

Evaluating children's sense of self-efficacy in social situations and whether they have a social skills deficit or not is important for treatment purposes. If a socially anxious child has difficulties interacting with others because she lacks the skills necessary for interacting with other children successfully the treatment should include social skills training. On the other hand, if the child has the social skills but is simply too anxious to express them and believes that he or she will not be able to perform adequately, then the treatment should include some form of anxiety reduction techniques such as, relaxation training or cognitive restructuring. Thus far research has not specifically addressed the question of whether socially anxious children's sense of self-efficacy in social situations might be different for children who have social skills deficits. It has also not been determined whether children's sense of self-efficacy is different when interacting with a peer stranger or a friend. It would be especially interesting to determine whether socially anxious children who have adequate social skills have a low sense of social self-efficacy both when interacting with a friend and when interacting with a peer stranger. If they tend to have a low sense of social self-efficacy when interacting with a friend and yet are receiving positive feedback from the friend, it may be argued that they have a cognitive distortion of their own skills and their resultant social competence.

1.6. Hypotheses tested in the current study

The purpose of the present study was to examine the relationship between socially anxious children's self-reported assertiveness, self-efficacy, and outcome expectancy in social situations with friends or strangers. It was expected that the results would help to clarify whether socially anxious children are able to exhibit social skills when they are in non-stressful social situations (with friend) as opposed to stressful social situations (with stranger).

First of all, it was hypothesized that various measures of social competence and social skills would be positively correlated to one another. It was also expected that various social skills measures completed by parents and teachers would be positively correlated with the children's evaluation of their own social skills. By examining the children's social skills from their parents' and teacher's perspectives, the results were expected to help clarify whether socially anxious children lack social skills, at least as judged by significant others.

The main hypotheses of the study were about how socially anxious children might show different levels of social skills when they are in a stressful social situation compared to when they are in a non-stressful social situation. First, it was expected that the socially anxious children would report being less assertive than the non-anxious children, independent of whether they are in a situation with a friend or a peer stranger (i.e., a main effect was predicted). Second, it was expected that all children, whether they had high or low social anxiety, would report being more assertive when interacting with a friend than when interacting with a peer stranger. However, an interaction effect was also expected for level of anxiety and reported assertiveness with a friend or a stranger.

Specifically, it was expected that differences in assertion in friend and stranger situations would be greater for the socially anxious children than non-anxious. Children who were highly anxious were therefore expected to be more assertive and socially skilled in a situation with a friend than with a stranger while the non-anxious children would report similar levels of assertion whether they were interacting with a friend or a peer stranger.

The second purpose of the study was aimed at children's self-efficacy and outcome expectancy in social situations with a friend and with a peer stranger. Since self-efficacy and outcome expectancy are dependent on how others react to the child (Lahey, 2003), it was hypothesized that all children would expect to do better when interacting with a friend than a stranger. Therefore, it was expected that all children would report more self-efficacy and better outcome expectancy with friends than with strangers, independent of anxiety levels (a main effect for friend vs. stranger situation). However, since the highly anxious children are more likely to receive negative or little positive feedback from their peers than the non-anxious children, it was hypothesized that they would not expect to do well with either a friend or a stranger (a main effect for social anxiety). As was found in the Spence et al. (1999) study, the socially anxious children who had poor social skills were less likely than other children to get positive feedback from peers during their interactions. Moreover, even though children can exhibit social skills when interacting with a friend, they routinely spend more time in social situations where they are too anxious to perform well (e.g., classroom, playground, and other group situations) and are therefore more likely to receive more negative feedback than positive feedback for their performance in the course of the day. Thus, an interaction effect was predicted, where the socially anxious children were expected to have higher self-efficacy

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and expect better outcomes when interacting with a friend than with a stranger. However, non-anxious children would expect to do similarly when interacting with a friend and with a peer stranger.

2. Method

2.1. Participants:

One hundred and fifty nine children, and their parents and teachers were asked to participate in the study. Ninety three children (68%; mean age 11.4 years; range 10-14 years) obtained parental permission and assented to participate (see Appendix A). The children attended fifth (n = 28), sixth (n = 22), seventh (n = 26), and eight grades (n = 17) in an elementary and middle school in Kopavogur, Iceland. The sample consisted of 35 boys and 58 girls, all Caucasian. One participating girl in the fifth grade was excluded from the analysis since she had only lived in Iceland for five months. Eighty four parents returned the parent questionnaires and of those, 82 completed them satisfactorily. Six out of eight teachers (two teachers at each grade level) agreed to participate in the study (see Appendix B) and completed teacher rating scales.

The results from the Social Phobia and Anxiety Inventory for Children (SPAI-C) were used to identify children for social anxiety. To ensure enough power for subsequent analysis and because so few children evidenced clinically significant social anxiety (SPAI-C score > 18), the third of the sample with the highest SPAI-C total scores was designated to comprise the socially anxious group (total score ≥13). The average was

then found for the rest of the children and the third which had scores closest to the average comprised the normal comparison group (total score 3.37 – 10.43). The children with the lowest 16% of scores and the children with 16% of scores between the socially anxious and the normal comparison group were excluded from certain analyses. Results indicated that the mean SPAI-C scores of the socially anxious group (M = 19.33; SD = 5.30) and the normal comparison group (M = 7.78; SD = 1.85) were significantly different (t = 11.08, df = 57, p<.001), as planned. Since only 89 children completed the SPAI-C adequately, 30 children (8 boys and 22 girls; mean age 11.7 years) were assigned to the socially anxious group and 29 children (13 boys and 16 girls; mean age 11.6 years) to the normal comparison group. The ratio of boys and girls in the reduced targeted sample (boys 35%; girls 65%) was almost the same as it was in the original sample (boys 38%; girls 62).

2.2. Measures:

A multi-informant assessment protocol was used to obtain as complete a picture of the children as possible. Since the study was conducted in Iceland, all the self-report measures were translated from English to Icelandic by the researcher. Back-translations were then obtained from another Icelandic graduate student in the United States with good English proficiency and then compared to the original measures.

Social Phobia and Anxiety Inventory for Children (SPAI-C; Beidel, Turner & Morris, 1995) (see Appendix D): The SPAI-C is a 26-item self-report questionnaire that measures physical, cognitive and avoidant dimensions of social anxiety in various social

situations. The scale consists of three factors: Assertiveness/General conversation, Traditional social encounters, and Public performance (Beidel, Turner, & Morris, 1998). The scale differentiates between socially phobic children and non-socially phobic children. According to Beidel, Turner, Hamlin, and Morris (2000) the SPAI-C was able to correctly identify 87% of the children with social phobia in their sample. The scale also possesses excellent internal consistency (alpha = .95) and test-retest reliability (r = .86) (Beidel et al., 1995). The highest possible score on the scale is 52 and the recommended clinical cutoff score for social phobia in the normative sample of American children is 18 (Beidel, Turner, & Fink, 1996). In the current sample, an internal consistency coefficient alpha of .92 was obtained.

The SPAI-C has previously been standardized in an Icelandic sample of 12 and 14 year old children and adolescents. The results indicated a mean score of 10.77 (SD = 7.71) for girls and 7.80 (SD = 5.94) for boys (Guðmundsdóttir & Marteinsdóttir, 1997).

Self-Efficacy Questionnaire for Social Skills – Children (R) (Ollendick & Schmidt, 1987) (see Appendix D): This questionnaire is a short 10-item self-report measure that addresses children's perceived self-efficacy of their ability to perform in various social situations. The child is asked to answer each of the questions with a yes or no answer and then rate on a five point Likert scale how sure they are that they could do what they are being asked to do. For example, if a child is asked whether they can get other children their age to be their friend, the child answers yes or no. Then the child rates how sure or confident he is that he could get other children to be his friends on a scale from 1 (not

sure at all) to 5 (really sure). Total scores range from 10 to 50. The questionnaire is internally consistent (alpha = .87) and has good test-retest reliability (r =.75). For purposes of this study, the questionnaire was modified slightly. Each child was asked to rate separately his or her performance and confidence in the various situations with a friend versus a stranger. Whether the child was asked to rate his or her confidence and ability to perform first with a friend or a stranger was counterbalanced. Internal consistency coefficient alphas of .65 for a friend and .79 for a stranger were obtained in this study.

Outcome Expectancy Questionnaire (Ollendick & Schmidt, 1987) (see Appendix D):

This questionnaire is a 10-item self-report measure designed to assess the belief that if one performed the required behaviors to produce a specific outcome then that outcome would in fact come about. For example, a child is asked if she thinks a group of children would let her play a game with them if she asked. The child is then asked to rate the probability of the outcome on a five point Likert scale from 1 (definitely not) to 5 (definitely so). Total scores range from 10 to 50. The questionnaire is internally consistent (alpha = .85) and has good test-retest reliability (r = .78). This questionnaire was also modified for purposes of the study. The child was asked how likely an outcome would be if she were interacting with a friend versus when interacting with a stranger. Whether the child was asked to rate the probability of an outcome first with a friend or a stranger was counterbalanced. In the current study, internal consistency coefficient alphas of .80 for friend and .86 for stranger were obtained.

The Social Skills Rating System – Secondary Level (SSRS: Gresham & Elliott, 1990)

(see Appendices C and D): This is a multi-rater assessment instrument intended for children and adolescents in grades 7 through 12. There is one rating form for the child (39 items) and one for the parent (52 items) (Gresham & Elliott, 1990). Two domains of behavior are examined: social skills and externalizing/internalizing problem behaviors. The child form contains questions on social skills (cooperation, assertion, empathy, and self-control), whereas the parent form contains questions on social skills (cooperation, assertion, responsibility, and self-control) and problem behaviors (externalizing and internalizing).

Internal consistency of the total Social Skills scales at the secondary level is alpha of .83 for the child form and .90 for the parent form. For individual factors on the child form, internal consistency is alpha = .67 for the Assertion factor, alpha = .77 for the Empathy factor, alpha = .69 for the Cooperation factor, and alpha = .68 for the Self-control factor.

For individual factors on the parent form, internal consistency coefficient alphas of .81 for the Assertion factor, .74 for the Responsibility factor, .78 for the Cooperation factor, and .82 for the Self-control factor were obtained. For the Problem Behaviors scales, the total internal consistency is alpha = .81. On the Internalizing factor internal consistency is alpha = .72 and on the Externalizing factor it is alpha = .82. Test-retest reliability of the scales ranges from .68 (total scale of problem behaviors on parent form) to .87 (total scale of social skills on parent form) at the secondary level (Gresham, 2001; Gresham & Elliott, 1990).

In this study, total internal consistency for the Social Skills scales at the secondary level was alpha = .82 for the child form and alpha = .84 for the parent form. For individual factors on the child form, internal consistency was alpha = .50 for the Assertion factor, alpha = .73 for the Empathy factor, alpha = .60 for the Cooperation factor, an alpha = .60 for the Self-control factor.

For individual factors on the parent form, internal consistency was alpha = .75 for the Assertion factor, alpha = .72 for the Responsibility factor, alpha = .72 for the Cooperation factor, and alpha = .74 for the Self-control factor. For the Problem Behaviors scales, the total internal consistency was alpha = .70. On the Internalizing factor internal consistency was alpha = .56 and on the Externalizing factor alpha = .66. It should be noted that in this study 5 items on the child form and 1 item on the parent form that asked about dating were removed due to the inappropriate nature of the questions for these Icelandic youth. Since the 5 items on the child form were part of the Assertion factor and there were only 10 items that loaded on this factor originally, the internal consistency for the factor was unusually low on the child form (alpha = .50). Therefore, the Spearman Brown formula was used to obtain internal consistency if the number of items had remained at 10. The calculation revealed that the internal consistency would have been alpha = .91 in this study if there had been 10 items loading on the factor. The Spearman Brown formula was not calculated for the Assertion factor on the parent form since only 1 item was removed and the internal consistency was adequate (alpha = .75).

The Behavioral Assertiveness Test for Children – Self Report (BAT-CR) (Ollendick, 1981) (see Appendix D): This multiple-choice questionnaire was developed from a role-

play task designed to assess assertiveness and social competency in children. The questionnaire contains 12 vignettes describing various social situations requiring an assertive response. The situations vary in valence and the gender of the children involved. In 6 of the vignettes, the child is required to respond with positive assertion (e.g., giving and receiving positive compliments) and in the remaining 6 vignettes the child is required to respond with negative assertion (e.g., refusing unreasonable requests). Half of the vignettes are intended for girls and the other half is intended for boys. Therefore, there are four types of vignettes: negative male, negative female, positive male, and positive female. For this study, each child was asked to respond separately if the child they would interact with in the vignette was a friend and if he or she was a stranger. The scenes were both randomly ordered for valence (positive assertion/negative assertion) of the vignettes and familiarity of the child in the story (friend/stranger). Each target child responded to 6 vignettes appropriate for their gender; 3 positive assertion scenes and 3 negative assertion scenes.

Four response options were available for each question. For the positive assertion scenes one point was given for selecting the aggressive response (e.g., telling someone to get their hands off of you when he/she tries to help you up), two points for denying help or praise (e.g., telling someone you are all right after having fallen), three points for acceptance of help or praise (e.g., telling someone thank-you), and four points for praise or appreciation (e.g., telling a boy his shot was great and you are happy he is on your team). For the negative assertion scenes one point was given for selecting the aggressive response (e.g., yelling at another child), two points for compliance of a request (e.g., letting someone cut in front of you in line), three points for non-compliance (e.g., saying

no to a boy wanting to borrow your bike), and four points for non-compliance and request for new behavior (e.g., saying no to a boy wanting to cut in front of you and telling him to go to the end of the line).

For purposes of analyses, the scores on the negative and positive assertion scenes were combined into one total score for the BAT measure. Possible total scores then ranged from 6-24 points. In this study, internal consistency for assertion (either negative or positive) with a friend (n = 6), was alpha = .34. Internal consistency for assertion (either negative or positive) with a stranger (n = 6), on the other hand, was alpha = .56. When assertion was calculated separately for positive and negative assertion scenes, internal consistency turned out to be alpha = .56 for positive assertion with a friend, alpha = .21 for negative assertion with a friend, alpha = .46 for positive assertion with a stranger, and alpha = .46 for negative assertion with a stranger. Although these internal consistencies are relatively low, it should be remembered that this test was designed to capture situational specificity of behavior and not its internal consistency (Ollendick, 1981).

Teacher Nominations (Ollendick, Oswald, & Francis, 1989): Teachers were asked to rate how popular, withdrawn, and aggressive each participating child in their class was. They were asked to rate each child on a 5-point Likert scale ranging from 1 (not at all like him/her) to 5 (very much like him/her) on each dimension. They were given characteristic descriptions of popular, withdrawn, and aggressive children to base their ratings on (Ollendick et al., 1989).

The following descriptions were all translated into Icelandic. This description was offered for aggressive children:

> "All teachers have children in their classroom who seem to require more discipline than others. This child may generally be described as, at times, intruding upon the rights of others in order to get his or her own way. In the extreme case, this child may engage in abusive language, pushing, hitting, fighting, or destroying property. More commonly, this child engages in more subtle negative behavior such as verbally insulting someone, making faces, excessive teasing, or trying to get others into trouble."

Withdrawn children were described as follows:

> "Another type of child regularly seen in classrooms is the withdrawn child. This child may generally be described as not standing up for herself or himself and perhaps consistently complying to the demands of others. This child is generally shy and may spend most of his or her time alone. If this child were to become the center of attention, he or she might appear uncomfortable. This child may tend to avoid assuming leadership roles and may also appear sad, fearful, or easy to offend."

And popular children were described as follows:

> "Still another type of child regularly seen in the classroom is the popular, well-adjusted child. This child is usually outgoing, friendly, and likes to be with other children. This child will usually speak up for himself/herself and is oftentimes perceived by the other children, as well as by the teachers, to be a leader. This child usually seems happy and to be well-liked by the other children."

The teacher nomination method has been shown to correlate well with various self-report, sociometric, and behavioral measures of assertiveness, self-efficacy, and outcome expectancy. They have also been shown to identify children at risk for poor peer relations and behavioral problems (Ollendick et al., 1989).

2.3. Procedure:

The study was introduced to children in eight classes in an elementary and middle school in Kopavogur, Iceland. All children were asked to take the consent forms home for their parents to sign (see Appendix A) if they wanted to participate (see Appendix A).

The Social Skills Rating System questionnaire was sent to parents (see Appendix C) along with the consent forms and they were asked to complete and return it by a specific date. No compensation was offered for participation in the study.

The children who obtained parental permission to participate were asked to complete five questionnaires in class: the SPAI-C, Self Efficacy Questionnaire, Outcome Expectancy Questionnaire, Social Skills Rating System-Student version, and the Behavioral Assertiveness Test – Self Report (see Appendix D). The administration of the questionnaires required either one (40 minutes) or two (80 minutes) class periods depending on the children's age. For the fifth and sixth graders, the researcher read the questions aloud while they marked their responses silently on their forms. This was done to ensure that individual reading ability did not interfere with the children's performance completing the questionnaires.

After the children completed the questionnaires, teachers were asked (see Appendix B) to rate each participating child in their class as to their popular, withdrawn, and aggressive status.

3. Results

3.1. Part I: Descriptive Analyses for the Total Sample of Children

Prior to testing the main hypotheses of the study for the socially anxious group and the normal comparison group, means and standard deviations of all measures were computed for the whole sample (see Table 1).

As can be seen in Table 1, girls and boys obtained similar mean scores on most of the measures in the study. However, analyses revealed that girls reported more assertiveness than boys on the BAT for both friend (t = -2.517, df = 86, p<.05, ES = .29) and stranger situations (t = -2.016, df = 86, p<.05, ES = .22). Also, girls scored higher on self-reported social skills (SSRS) on the Assertion scale (t = -2.362, df = 84, p<.05, ES = .25) and on the Empathy scale (t = -3.939, df = 84, p<.001, ES = .44). Finally, differences in popularity ratings by teachers approached significance, with girls being rated more popular than boys (t = -1.973, df = 65, p <.06).

3.1.1. Zero Order Correlations for SPAI-C, BAT, Self Efficacy, Outcome Expectancy, Social Skills, and Teacher Ratings

Zero order correlations for the main measures of the study were computed for the total sample and can be seen in Tables 2 and 3. Since analyses indicated significant mean differences on several measures for the boys and girls (see Table 1), gender was controlled for in the following correlation analyses.

As can be seen in Table 2 several of the measures were significantly correlated. For example, the SPAI-C was inversely correlated with self-efficacy and outcome expectancy. This indicates that children who exhibit social anxiety reported lower self-efficacy and expected worse outcomes than children with lower levels of social anxiety. However, the BAT measure for friend and stranger was not correlated with any of the other measures with one exception: the BAT for stranger was significantly correlated with self-efficacy with stranger (r = .31).

As can be seen in Table 3 the child social skills ratings were moderately correlated with other child measures (e.g. SPAI-C, BAT, etc.). However, parent social skills ratings and teacher ratings were hardly correlated with any of the child measures. The only exceptions were the significant correlations for the SPAI-C and parent rated assertion (r = -.33, p<.05) and teacher ratings of withdrawal (r = .33, p<.05).

3.1.2. Agreement between Children, Parents and Teachers on Children's Social Skills

Since analyses indicated gender differences on several measures, partial correlations were next computed to examine the agreement between children, parents, and teachers on the social skills measures controlling for child gender (see Table 4).

As can be seen in Table 4, there was some agreement between children, parents, and teachers on different facets of the children's social skills. Examining agreement between children and parents, it can be seen that several relationships were significant. For example, children's report of assertion on the SSRS was significantly correlated with parents' report of assertion (r = .46) and inversely related to parents' report of externalizing problems (r = -.36). In addition, children's report of self-control was significantly correlated with parents' report of self-control (r = .40), and inversely correlated with parents' report of externalizing problems (r = -.36). Finally, children's total social skills score was significantly correlated with parents' total social skills score (r = .32), and inversely correlated with parents' report of internalizing problems (r = -.27) and externalizing problems (r = -.30).

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Next, agreement between teachers and parents was examined. Teacher ratings of popularity were found to be correlated with parents' report of assertion (r = .36), cooperation (r = .33), responsibility (r = .41), self-control (r = .41), and total score of social skills (r = .50). Popularity was also inversely related with externalizing problems (r = -.28). Teacher ratings of withdrawal were inversely correlated with parents' report of assertion (r =-.49). Finally, teacher ratings of aggression were correlated with parents' report of externalizing problems (r = .28) and inversely related with self-control (r = -.29).

As can be seen in Table 4, children and teachers showed the least amount of agreement. Only children's report of assertion was correlated with teacher ratings of popularity (r = .31), and inversely related with teacher ratings of withdrawal (r = -.37).

3.2. Part II: Results for Socially Anxious Children and Normal Comparison Children

As previously indicated, the SPAI-C was used to divide children into a socially anxious group and a normal comparison group. The third of the sample with the highest SPAI-C total scores comprised the socially anxious group and the normal group consisted of the 33% of children who had scores closest to the average of the rest of the youth.

Before testing whether socially anxious children differed from the normal comparison group on various measures, means and standard deviations were computed for these two identified groups (see Table 5).

When results from the socially anxious group were compared to the normal comparison group, interesting findings emerged. Since gender differences were observed

in the previous analyses, an ANCOVA was performed where gender was treated as a covariate. First of all, socially anxious children reported having less self-efficacy with both friends, $F(1,53) = 20.79$, $p<.001$, ES = .55, and strangers, $F(1,53) = 17.7$, $p<.001$, ES = .55, than the normal comparison group. Also, socially anxious children reported having lower outcome expectancy with both friends, $F(1,53) = 22.97$, $p<.001$, ES = .55, and strangers, $F(1,53) = 10.87$, $p<.05$, ES = .43, than the normal comparison group. A significant difference was also observed for self-reported total social skills, $F(1,54) = 9.38$, $p<.05$, ES = .32, but not for total social skills as rated by parents, $F(1,54) = .92$, $p>.05$. In addition, children in the normal comparison group considered themselves to be more assertive than children in the socially anxious group, $F(1,54) = 18.37$, $p<.001$, ES = .50. However, parents of children in the socially anxious group did not consider their children to be any less assertive than the parents of the children in the normal group, $F(1,54) = 1.932$, $p>.05$. Children in the normal comparison group also considered themselves to be more empathetic than children in the socially anxious group, $F(1,54) = 6.45$, $p<.05$, ES = .21. Finally, the children in the socially anxious group were rated by their teachers to be more withdrawn than children in the normal comparison group, $F(1,30) = 4.86$, $p<.05$, ES = .42.

3.2.1. Social Anxiety and Assertion with Friends and Strangers

Since previous analyses revealed significant gender differences on several of the measures, gender was treated as a covariate in these analyses as well.

To examine the relationship between social anxiety and assertiveness with friends and strangers, three repeated measure ANCOVAs (mixed factorial design) were

conducted. First, it was hypothesized that, in comparison with the normal comparison group, socially anxious children would report being less assertive on the BAT measure. Unexpectedly, results indicated that socially anxious children reported being just as assertive as the normal comparison children, $F(1, 54) = 1.307$, $p>.05$. Second, it was hypothesized that all children, whether they were socially anxious or not, would report being more assertive with friends than with strangers. This hypothesis was not supported either since a significant difference was not observed for friend and stranger situations, $F(1, 54) = 1.541$, $p>.05$. Third, an interaction effect was expected where socially anxious children would be more assertive and socially skilled in a situation with a friend than with a stranger. Children who have low or normal social anxiety would, on the other hand, be expected to be similarly assertive and socially skilled across situations. As predicted, results indicated that there was a significant interaction effect for social anxiety and familiarity of the person they interacted with, $F(1, 54) = 6.049$, $p<.05$. Thus, socially anxious children reported being more assertive when interacting with friends than with strangers, while the normal comparison group reported similar levels of assertion with either friends or strangers (see Figure 1).

Since the main analysis of the self-reported assertiveness was based on combined scores of positive and negative assertion scenes, further analyses were performed to examine results for positive and negative assertion scenes separately.

Two repeated measures ANCOVAs were performed with gender as a covariate. For positive assertion scenes, socially anxious children were not more assertive than normal children, $F(1,54) = .93$, $p>.05$. However, all children reported being more assertive with friends than with strangers, $F(1,54) = 5.02$, $p<.05$, ES = .34, and the

interaction effect of social anxiety and interacting with friends or strangers approached significance, $F(1,54) = 3.575$, $p = .06$ (see Figure 2).

For the negative assertion scenes, the children did not report being more assertive with friends than with strangers, $F(1,54) = .05$, $p>.05$, socially anxious children were no less assertive than the normal children, $F(1,54) = .69$, $p>.05$, and there was no interaction effect observed for social anxiety and how well the children knew the child they were interacting with, $F(1,54) = 1.40$, $p>.05$ (see Figure 3).

3.2.2. Social Anxiety and Self-Efficacy with Friends and Strangers

Next, the relationship between social anxiety and self-efficacy was examined with three repeated measures ANCOVAs. Just as with assertion, socially anxious children were expected to have less self-efficacy in social situations than the normal comparison children. The ANCOVA revealed a significant main effect for self-efficacy, $F(1,51) = 24.94$, $p<.001$, ES = .55. The socially anxious children reported lower self-efficacy than the normal comparison children, independent of whether they were interacting with a friend or with a stranger (see Figure 4).

A second ANCOVA was performed to test the hypothesis that all children, independent of whether they were socially anxious or not, would have more self-efficacy when interacting with a friend than with a stranger. Results showed that there was a significant difference for self-efficacy with friends and strangers that was independent of social anxiety levels, $F(1,51) = 12.84$, $p<.001$, ES = 1.15 (see Figure 4).

Finally, an interaction effect was expected where socially anxious children would report having more self-efficacy when interacting with a friend than with a stranger, and

the normal comparison children would report similar levels of self-efficacy with either friends or strangers. However, results did not support this hypothesis and no interaction effect was found, $F(1,51) = .362$, $p>.05$

3.2.3. Social Anxiety and Outcome Expectancy with Friends and Strangers

Finally, the relationship between social anxiety and outcome expectancy was examined with repeated measures ANCOVAs. It was hypothesized that the socially anxious children would expect worse outcomes in social situations than normal comparison children. The first ANCOVA revealed a significant effect for social anxiety and outcome expectancy, $F(1,50) = 20.65$, $p<.001$, $ES = .46$. The socially anxious children expected worse outcomes than the normal children, independent of whether they were interacting with a friend or a stranger.

Results also supported the hypothesis that all children would expect worse outcomes when interacting with a stranger than with a friend, independent of levels of social anxiety, $F(1,50) = 16.82$, $p<.001$, $ES = 1.01$ (see Figure 5). Although an interaction effect was expected where socially anxious children would expect worse outcomes when interacting with a friend than with a stranger, this hypothesis was not supported, $F(1,50) = .035$, $p>.05$.

3.3. Part III: Post Hoc Analyses

It was unexpected that the interaction effect for self-efficacy and outcome expectancy was not significant. According to social learning theory, the socially anxious children should have reported high self-efficacy and expect good outcomes when

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interacting with a friend since they are more likely to receive positive feedback in this situation. Since the participants in the study were regular elementary and middle school students, and not clinically referred, it is possible that the analyses did not adequately capture these possible interaction effects.

To examine this possibility, the data was reanalyzed with redefined groups. The socially anxious group consisted of all children above the recommended clinical cut-off score of 18, or 13 children in total (6 boys and 7 girls) (average SPAI-C score = 24.2). The normal comparison group consisted of the 6 boys and 7 girls who had SPAI-C scores closest to the mean for the rest of the children. Their scores ranged from 8 to 10.3 (average SPAI-C score = 9.10).

A repeated measures ANCOVA was performed for self-efficacy where the effects of gender were controlled for. Results indicated a significant main effect for social anxiety and lower self-efficacy ($F(1,21) = 6.84$, $p<.05$), where the socially anxious reported less self-efficacy. There was also a significant main effect for friend versus stranger situations, where all children reported higher self-efficacy with a friend than with a stranger ($F(1,21) = 160$, $p<.001$). Although the main effects were significant, the interaction effect only approached significance ($F(1,21) = 2.56$, $p = .12$).

The same analyses were performed for outcome expectancy and social anxiety. Results indicated significant main effects where socially anxious children expected worse outcomes than normal comparison children ($F(1,21) = 6.61$, $p<.05$) and all children expected better outcomes with friends than strangers ($F(1,21) = 147$, $p<.05$). However, the interaction effect was not significant ($F(1,21) = .04$, $p>.05$).

4. Discussion

Results of the present study provide additional data as to whether socially anxious children lack social skills. It seems that the socially anxious children in the study believed that they were less socially skilled than their non-anxious peers, while their parents and teachers reported no differences. These findings are consistent with the findings of Cartwright-Hatton et al. (2003, 2005), where socially anxious children rated their performance on a speech task as poor while objective judges observed no differences between the socially anxious children and other children. The findings of the present study supported several of the hypotheses presented previously about how social anxiety, assertion, self-efficacy, and outcome expectancy would be inter-correlated.

First, the socially anxious children reported being less assertive than children in the normal comparison group on the Social Skills Rating System. However, the socially anxious children reported being more assertive with friends than strangers, while the normal comparison children did not report any differences in assertion with friends and strangers on the Behavioral Assertion Test. This indicates that although socially anxious children may have difficulties being assertive with strangers or people they do not know well, they are able to be assertive when they are in non-stressful situations with friends.

Second, it was observed that children in the socially anxious group reported having lower self-efficacy and outcome expectancy than the normal comparison children. It was also observed that children in both groups had more self-efficacy and expected better outcomes in situations with friends than in situations with strangers. However, the

interaction of stress of the situation and social anxiety was not significant for either self-efficacy or outcome expectancy.

Third, various measures on social skills revealed that socially anxious children were rated as being equally skilled as other children by their parents and teachers. For example, the parents of the socially anxious children rated their children equally as assertive, cooperative, reliable, and able to demonstrate self-control as the parents of the normal comparison children. Also, teachers rated the socially anxious children equally as popular and aggressive (or non-aggressive) as the normal comparison children. It is interesting, however, that the socially anxious children rated themselves as less assertive and less socially skilled than the normal comparison children. It remains unclear whether socially anxious children exhibit unrealistic beliefs and cognitive distortions of their own ability or if parents and teachers do not accurately depict their social skills. It is possible that parents and teachers do not notice that socially anxious children avoid various social situations to minimize their anxiety. Parents and teachers may therefore have a skewed picture of these children and only see them in situations they are comfortable with and where they are able to successfully interact with peers. Another possibility is that parents and teachers see children in different situations (home versus at school) where children may show entirely different behaviors. It may therefore be that both parents and teachers accurately report the child's behavior in each situation (Achenbach, McConaughy, & Howell, 1987). It would have been beneficial to assess the children´s skill level on a behavioral task with both a friend and a stranger instead of relying merely on questionnaires. The children´s level of social skills could then have been coded separately

by a same-age peer and the parent to assess both if children accurately report their skill level and if parents assess skill level in the same way children do.

Despite these differences, there was satisfactory agreement between children ratings, parent ratings, and teacher ratings overall. All the significant correlations between child, parent, and teacher measures ranged from r = .27 to r = .50. According to Cohen (1992), these correlations indicate medium to large effect sizes. These correlations are also similar to the agreement Achenbach, McConaughy, and Howell (1987) obtained between children, parents, and teachers on the Child Behavior Checklist.

Results of the study can be understood from a social learning theory perspective. If socially anxious children lack self-efficacy and expect negative outcomes in social situations, they are unlikely to expose themselves to such situations. When they do not expose themselves to social situations they do not obtain positive feedback from their peers that will increase their self-efficacy and improve their outcome expectancy. Therefore, they are more likely to avoid these situations in the future and, in turn, decrease their self-efficacy even further. Although the results of the study only supported the interaction hypothesis for assertiveness with a friend and a stranger, post hoc analyses with a more severely socially anxious group revealed that the interaction of self-efficacy ratings of familiarity of interaction partner approached significance. However, due to small sample size (13 in normal group and 10 in socially anxious group) the power may not have been sufficient to detect meaningful differences. The discrepant results may also be due to the fact that on the Behavioral Assertiveness Test children are asked what they usually do in the described situations. However, on the Self-efficacy and Outcome Expectancy questionnaires children's answers are based on their cognitions and fear of

what might happen. It could be that socially anxious children have cognitive distortions about their own ability and the outcome of their behavior. Although they do report having more self-efficacy and expect better outcomes when interacting with a friend, they may not interpret the friend´s positive feedback accurately and therefore do not have as much faith in their ability as the other children. The findings that socially anxious children reported being less skilled in social situations on the Social Skills Rating System supports the possibility of cognitive distortion.

Various limitations of the study are worth mentioning. For one thing, the measures of the study had to be translated into Icelandic and norms were not available for the Icelandic population. Although the measures were carefully translated and back-translated, there is always a possibility that some items were understood differently than they are understood in the United States. It is even possible that these items were not appropriate for Icelandic culture. However, for most of the measures, internal consistency was similar to the original versions intended for the American population. This indicates that the items appear to measure similar constructs in both countries.

The results of the measures that did not have adequate internal consistency should be interpreted with caution. The Self-Efficacy Questionnaire did not have adequate internal consistency for the friend condition (alpha = .65) and only moderately acceptable reliability for the stranger condition (alpha = .79). Also, most of the factors on both the child and parent forms on the SSRS measure had internal consistencies below the expected alpha (alpha = .80). However, the alphas obtained in this study were only slightly lower than the alphas obtained for the original SSRS factors. Still, for some of the factors, the questions might not capture the intended construct as well as they should.

The alphas for the score on the BAT for friend and stranger were also fairly low, ranging from alpha = .21 to alpha = .56. However, as mentioned before, this test was designed to capture situational specificity of behavior and not its internal consistency (Ollendick, 1981).

One limitation of the study was that the sample consisted of normal school children and not clinically referred socially anxious children. Since the purpose of the study was to examine social skills among socially anxious children, the children who comprised the socially anxious group may not have been socially anxious enough to demonstrate the hypothesized differences. It is of interest that the results of this study were commensurate with the findings of Cartwright-Hatton et al. (2003, 2005), who also assessed a sample of school children, and different from the findings of Beidel et al. (1999) and Spence et al. (1999), who assessed clinically referred samples. It is possible that the more severely anxious children are, the more they avoid social situations and fail to develop age appropriate social skills due to lack of exposure. If they are not performing adequately in social situations they are less likely to receive positive feedback and their self-efficacy and outcome expectancy may decrease even further. It would be interesting to administer the measures of the study in a sample of clinically socially anxious children and see if they same differences for friend and stranger situations emerge.

It is of interest that an unexpected gender difference emerged in this study. For example, the girls in the whole sample reported being more assertive than boys on both the BAT measure and the SSRS measure. This is a different pattern from what has emerged in previous studies on assertiveness in the United States where boys and girls

have reported similar levels of assertion (Ollendick, 1984) and boys have been observed to be more assertive than girls on a role-play task (Ollendick et al., 1985). This discrepancy may be a result of the study being conducted in Iceland, where there may be different limitations and expectations for boys and girls than in the United States. However, gender differences have not frequently emerged in other Icelandic studies involving children (e.g., Magnusdottir and Smari, 2004; Adalbjarnadottir, 1995). Although assertiveness has not been studied specifically, Icelandic boys and girls have been found to be equally able to solve socially stressful problems (Adalbjarnadottir, 1995). Therefore, the gender differences observed in this study should be interpreted cautiously and should not be generalized to children in other countries without further investigating the true value of these differences.

Other differences between Icelandic and American children emerged in the study. For example, the total scores on the SPAI-C in this study were lower in the Icelandic sample than in the American sample (Beidel et al., 2000) and the cut-off score for the socially anxious group had to be lowered to include enough children for analyses. It is unclear whether Icelandic children experience less social anxiety than American children, or if Icelandic children were underreporting on the SPAI-C. However, other Icelandic studies have reported similar scores on the SPAI-C as were obtained in this study. For example, studies examining 14 to 15 year old Icelandic adolescents have obtained means ranging from 9.7 - 10.3 for girls and 8.2 - 8.3 for boys on the SPAI-C (Magnusdottir & Smari, 1999; Smari, Petursdottir, & Þorsteinsdottir, 2001). It is also of interest that in a study by Magnusdottir and Smari (2004) Icelandic children reported fewer depressive symptoms on the Child Depression Inventory than children in the United States (Kovacs,

1992). However, adolescents in the same study reported more depressive symptoms than American adolescents (Kovacs, 1992). Despite these differences, it seems unwarranted to assume that Icelandic children and adolescents experience less anxiety than American children, given this unclear pattern of responding. It is possible that Icelandic children experience the same anxiety levels but express it differently than the American children and the measures might not capture this anxiety accurately.

Despite the cultural limitations, these findings offer insight into the developmental trajectory of social anxiety disorder. It is interesting that while both parents and teachers agreed that the children in the socially anxious group were no less socially skilled than the other children, the socially anxious children believed they were less socially skilled than the other children. If children believe they have poor social skills, are less assertive, have low self-efficacy in social situation and expect poor outcomes, it can be anticipated that they may try to avoid social situations as much as they can. The avoidance of social situations will then result in loss of their social skills or failure to develop age appropriate skills due to lack of practice, which will then result in even lower self-efficacy and reduced outcome expectancies. By the time these children reach adolescence and adulthood, they may have developed a social skills deficit as a result of their social anxiety disorder. Although there is no direct pathway to developing social anxiety disorder, certain factors seem to predispose a child to develop the disorder. Such factors may be anxiety sensitivity, parental influences, conditioning events, peer relationships, and cognitive factors. However, none of these factors is necessary or sufficient for a child to develop social anxiety disorder (Ollendick & Hirshfeld-Becker, 2002).

The finding that socially anxious children reported being more assertive with friends than with strangers sheds some light on what mechanisms may be driving the performance inhibition in stressful social situations. In the developmental literature the concept of affective social competence may come into play when discussing social skills. According to Halberstadt, Denham, and Dunsmore (2001) affective social competence is comprised of one's ability to send affective messages, receive affective messages, and experience affect. All these components affect one's ability to communicate affect to others, interpret other's affect successfully, and be aware and able to regulate one's own affect. If any one of these components is not in balance, one's ability to send or receive social messages could be limited. When a socially anxious child interacts with a stranger, the child's ability to send and receive social messages might be constrained since the child may have difficulties regulating his emotions in the stressful situation. If the child experiences intense anxiety and tries to restore balance by regulating his affect, he is less likely to receive subtle social cues from the other person and respond appropriately. The anxiety may therefore be hindering the child to demonstrate their social skills. Eisenberg (2001) has shown that children with internalizing problems have low attentional regulation, which is considered important for regulating emotions and restoring balance. Eisenberg, Shepard, et al. (1998) also observed that shy children have difficulties regulating emotions and coping with stress. In addition, Southam-Gerow and Kendall (2000) found that children referred for anxiety treatment had a poorer understanding of hiding and changing their emotions (i.e., emotion regulation) than non-referred children. Together these findings indicate that socially anxious children may have difficulties demonstrating social skills when interacting with strangers because they are focusing

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their attention on regulating their affect and not paying attention to sending and receiving social messages. The concept of affective social competence might therefore clarify what basic mechanisms cause a socially anxious child to show limited social skills when interacting with a stranger.

Finally, the findings of the current study have implications for assessment and treatment of social anxiety among children and adolescents. It can be concluded that it is important to assess whether socially anxious children and adolescents can exhibit adequate social skills when interacting with a friend in a non-stressful situation. If the child is able to show adequate social skills with friends, but not in more stressful social situations, treatment might focus on reducing the anxiety and changing the child's beliefs about his or her ability to perform well in the situation. It seems useless to try to teach skills that are already in place and may even be detrimental since teaching the child skills they already have will reinforce the child's beliefs that his or her skills were not adequate in the first place. Based on the findings of the study, increasing the child's self-efficacy in social situations seems also important in the treatment setting. The finding that socially anxious children have less self-efficacy in stressful social situations and report not performing well, illustrates the importance of self-efficacy in bringing about adequate skills to experience success in social situations. Based on the findings of the study socially anxious children may have a cognitive distortion of their ability that prevents them from interpreting positive feedback from friends as positively as they should. Unless children believe they can succeed in a given situation with either a friend or a stranger, their social anxiety and social skills will continue to hinder them in experiencing positive outcomes of social interactions. Although the developmental trajectory of social

anxiety disorder is diverse and non-deterministic, it seems that self-efficacy plays a pivotal role in the development and maintenance of social anxiety.

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Table 1

Means and standard deviations of measures for
the total sample (N = 92); boys (n = 35) and girls (n = 57),

	Total sample X (S.D.)	Boys X (S.D.)	Girls X (S.D.)
SPAI-C	11.21 (7.37)	9.48 (8.13)	12.33 (6.68)
BAT			
Friend	20.35 (1.91)	19.67 (2.16)	20.76 (1.63)*
Stranger	18.94 (2.44)	18.27 (3.04)	19.37 (1.91)*
SEQ			
Friend	42.87 (5.58)	41.64 (7.22)	43.68 (4.05)
Stranger	31.69 (8.07)	31.96 (8.86)	31.51 (7.59)
OEQ			
Friend	39.57 (4.97)	38.85 (5.95)	40.04 (4.20)
Stranger	30.40 (6.24)	29.39 (7.21)	31.06 (5.48)
SSRS – Child			
Assertiveness	6.70 (1.75)	6.18 (2.11)	7.06 (1.36)*
Empathy	14.62 (3.02)	13.14 (3.14)	15.64 (2.50)*
Cooperation	14.83 (2.49)	14.64 (2.24)	14.95 (2.66)
Self-control	12.61 (2.92)	12.69 (2.73)	12.55 (3.06)
Total	48.76 (7.64)	46.66 (7.80)	50.20 (7.25)
SSRS – Parent			
Assertiveness	13.38 (2.59)	12.95 (3.29)	13.62 (2.08)
Cooperation	12.36 (2.97)	12.40 (2.92)	12.33 (3.02)
Responsibility	17.17 (2.17)	16.87 (2.27)	17.34 (2.12)
Self-control	13.42 (3.07)	13.12 (3.23)	13.59 (3.00)
Total	56.32 (8.17)	55.34 (8.26)	56.88 (8.14)
Externalizing	2.58 (1.71)	2.97 (2.00)	2.35 (1.50)
Internalizing	3.54 (1.85)	4.00 (1.86)	3.28 (1.81)
Teacher Ratings			
Popularity	3.04 (1.17)	2.69 (1.19)	3.27 (1.12)[+]
Withdrawal	1.90 (1.20)	1.62 (1.16)	2.07 (1.19)
Aggression	1.42 (0.86)	1.65 (1.13)	1.27 (0.59)

*p<.05   SPAI-C = Social Phobia and Anxiety Inventory for Children   BAT = Behavioral Assertiveness Test
+p<.10   SEQ = Self-Efficacy Questionnaire   OEQ = Outcome Expectancy Questionnaire   SSRS = Social Skills Rating System

Table 2

Intercorrelations matrix for total sample (N = 92).

	SPAI-C	BAT Friend	BAT Stranger	SEQ Friend	SEQ Stranger	OEQ Friend	OEQ Stranger
SPAI-C		-.02	-.13	-.64**	-.60**	-.47**	-.47**
BAT							
Friend			.48**	.09	.03	.22	-.03
Stranger				.17	.31*	.18	.17
SEQ							
Friend					.72**	.62**	.56**
Stranger						.49**	.67**
OEQ							
Friend							.65**
Stranger							

* p< .05   SPAI-C = Social Phobia and Anxiety Inventory for Children   BAT = Behavioral Assertiveness Test
** p< .001   SEQ = Self-Efficacy Questionnaire   OEQ = Outcome Expectancy Questionnaire   SSRS = Social Skills Rating System

Table 3

Intercorrelations matrix for social skills ratings and various child measures.

	SSRS-Child					SSRS-Parent							Teacher Ratings		
	A	E	C	S	T	A	C	R	S	T	I	Ex	P	W	Ag
SPAI-C	-.32*	-.06	.05	.01	-.08	-.33*	.16	-.03	.04	-.05	.23	.02	-.15	.33*	.11
BAT															
Friend	.30*	.27	.33*	.21	.36*	.20	-.13	.20	.02	.09	-.04	-.01	.09	.24	-.11
Stranger	.23	.16	.01	.23	.20	.09	-.20	.01	-.08	-.06	-.13	-.09	-.13	-.05	-.10
SEQ															
Friend	.41*	.14	.03	.04	.18	.22	-.13	.16	-.05	.06	-.32*	-.03	-.15	-.18	-.05
Stranger	.37*	.08	-.05	.01	.10	.07	-.16	.14	-.09	-.02	-.11	.04	-.11	-.05	.05
OEQ															
Friend	.43*	.44*	.32*	.37*	.51**	.06	-.09	.07	.24	.09	-.04	-.17	.02	-.08	-.08
Stranger	.37*	.28*	.17	.27	.35*	-.01	-.24	-.01	.01	-.08	-.25	-.17	-.05	-.01	-.01

*p < .05 SSRS = Social Skills Rating System   A = Assertiveness   E = Empathy   C = Cooperation   S = Self-control   R = Responsibility   T = Total scores
** p < .001   I = Internalizing   Ex = Externalizing   P = Popularity   W = Withdrawal   Ag = Aggression   SPAI-C = Social Phobia and Anxiety Inventory for Children
BAT = Behavioral Assertiveness Test   SEQ = Self-Efficacy Questionnaire   OEQ = Outcome Expectancy Questionnaire

Table 4

Agreement on social skills between children, parents, and teachers.

	SSRS – Child					SSRS – Parent						Teacher Ratings			
	A	E	C	S	**T**	A	C	R	S	**T**	I	Ex	P	W	Ag
SSRS Child															
A		.56**	.36*	.16	.65**	.46**	-.17	.19	.17	.21	-.10	-.36*	.31*	-.37*	-.22
E			.29*	.34*	.77**	.37*	-.18	.20	.36*	.25	-.14	-.16	.16	-.17	-.06
C				.58**	.76**	.07	.09	.26	.27*	.23	-.12	-.24	.18	-.05	-.16
S					.75**	.00	.21	.10	.40*	.25	-.24	-.36*	.05	.08	-.12
T						.28*	-.01	.26	.43**	.32*	-.27*	-.30*	.22	-.15	-.17
SSRS Parent															
A							.21	.50**	.34*	.66**	-.51**	-.13	.36*	-.49**	-.08
C								.50**	.52**	.74**	-.14	-.33*	.33*	.02	-.15
R									.57**	.82**	-.22	-.36*	.41*	-.01	-.18
S										.82**	-.11	-.56**	.41*	.11	-.29*
T											-.32*	-.46**	.50**	-.12	-.23
I												.28*	-.23	.25	.07
E												-.28*	-.04	.28*	
Teacher Ratings															
P														-.18	-.49**
W															-.23
Ag															

*p < .05 SSRS = Social Skills Rating System A = Assertiveness E = Empathy C = Cooperation S = Self-control
** p < .001 R = Responsibility T = Total scores I = Internalizing Ex = Externalizing P = Popularity W = Withdrawal Ag = Aggression

Table 5

Means and Standard Deviations of the SPAI-C, BAT, Self-Efficacy, and Outcome Expectancy
for socially anxious children (N = 30) and normal comparison children (N = 29).

	Total non-anxious sample	Total socially anxious sample
	X (S.D.)	X (S.D.)
SPAI-C	7.78 (1.85)	19.33 (5.30)**
BAT		
Friend	20.36 (1.73)	20.59 (1.80)
Stranger	19.63 (1.97)	18.76 (1.46)
SEQ		
Friend	44.5 (3.64)	39.12 (6.18)**
Stranger	32.75 (6.16)	26.26 (5.49)**
OEQ		
Friend	41.36 (3.96)	36.8 (4.35)**
Stranger	31.54 (5.37)	27.2 (5.47)**
SSRS – Child		
Assertiveness	7.25 (1.26)	5.62 (2.02)*
Empathy	15.15 (2.76)	13.92 (3.01)*
Cooperation	15.17 (2.21)	14.59 (2.82)
Self-control	13.38 (3.04)	12.06 (2.86)
Total	50.95 (6.42)	46.18 (8.35)*
SSRS – Parent		
Assertiveness	13.67 (2.54)	12.89 (2.68)
Cooperation	12.40 (2.93)	12.79 (3.46)
Responsibility	17.52 (2.03)	17.24 (1.88)
Self-control	14.45 (2.93)	13.38 (2.46)
Total	58.03 (8.16)	56.30 (7.49)
Externalizing	2.19 (1.61)	2.63 (1.62)
Internalizing	3.22 (2.06)	3.69 (1.67)
Teacher Ratings		
Popularity	3.53 (.99)	3.44 (1.37)
Withdrawal	1.67 (.98)	2.75 (1.61)*
Aggression	1.20 (.41)	1.50 (1.03)

 * p< .05   SPAI-C = Social Phobia and Anxiety Inventory for Children   BAT = Behavioral Assertiveness Test
** p< .001   SEQ = Self-Efficacy Questionnaire   OEQ = Outcome Expectancy Questionnaire   SSRS = Social Skills Rating System

Figure 1

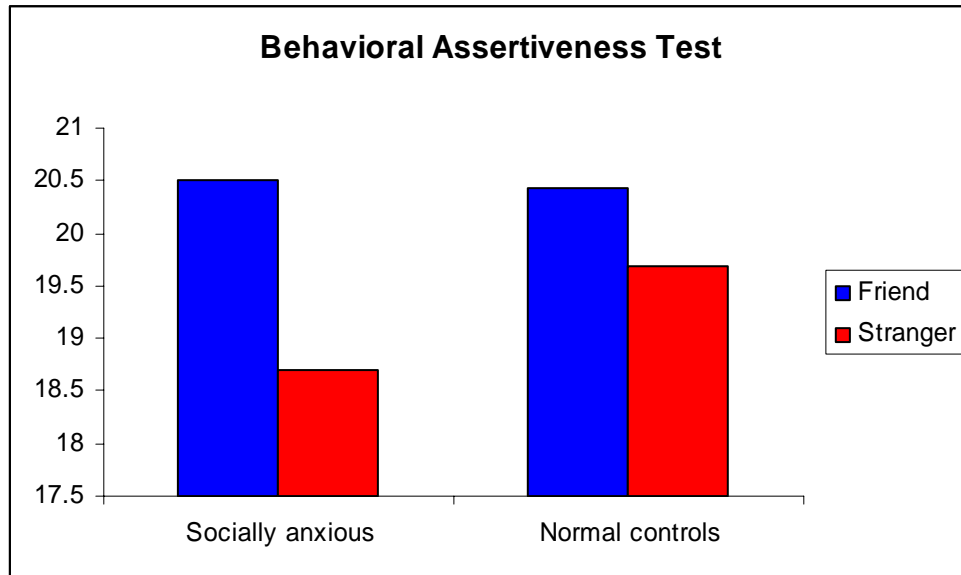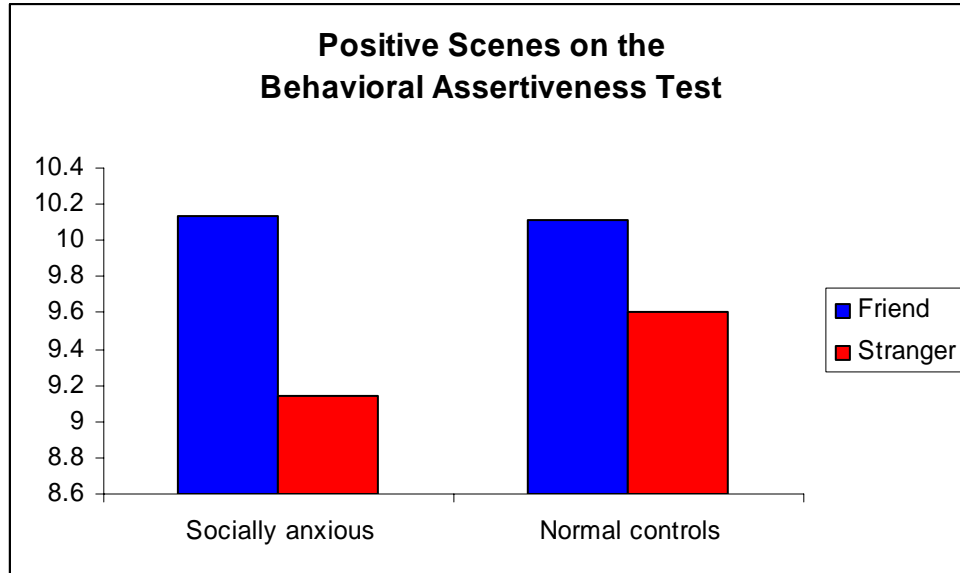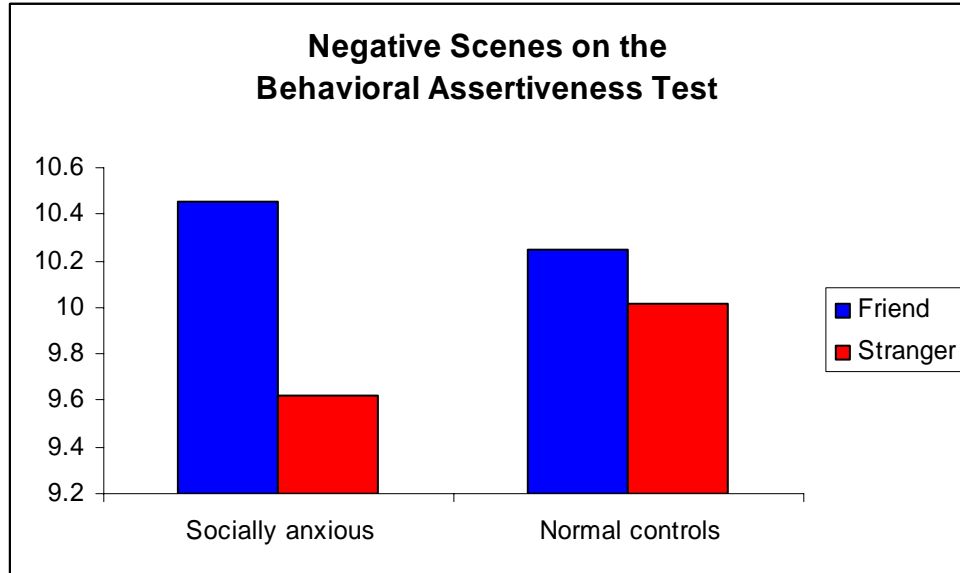Self-reported assertion with friends and strangers for socially anxious children and normal children

Figure 2

Positive assertion scenes with friends and strangers for socially anxious children and normal children
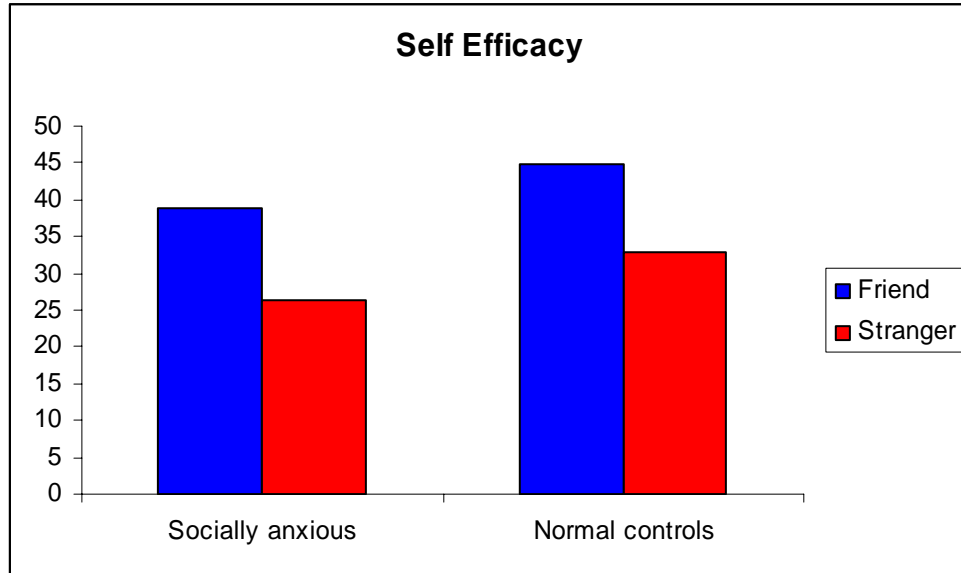
Figure 3

Negative assertion scenes with friends and strangers for socially anxious children and normal children

Figure 4

Self efficacy with friends and strangers for socially anxious children and normal children

Figure 5

Outcome expectancy with friends and strangers for socially anxious children and normal children