

THE RELATIONSHIP OF SHYNESS AND ANXIETY
IN STRUCTURED VS. NONSTRUCTURED
DYADIC INTERACTIONS

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CHAPTER I
INTRODUCTION

Although social shyness is undoubtedly an age old problem, the formal study of shyness is of relatively recent origin. It began with descriptive analyses derived from clinical observation. Perhaps the earliest account was provided by a British physician at the turn of the century who described the factors that contributed to the genesis and behavioral consequences of shyness (Campbell, 1896). During the mid 1970's, the applied research literature began to emerge. A major impetus to research in the area of shyness was the publication of a book by Zimbardo (1977) intended for popular distribution. This book incorporated information from the Stanford Shyness Survey and also reported on the prevalence rates of shyness and the negative consequences associated with the self-label of shyness. Since its publication, research in the area of shyness and social anxiety has grown considerably. Researchers such as Buss (1980), Crozier (1979), Leary (1982) and Jones and Russell (1982), to name but a few, have added to the base of knowledge providing greater detail regarding the conceptualization, explanation, and treatment of shyness.

Shyness has been described as "...the tendency to be tense, worried, and awkward during social interactions with strangers, casual acquaintances, and persons in positions of authority" (Cheek, Carpentieri, Smith, Rierdan, & Koff, 1986, p. 105). Jones and Russell propose the following definition of shyness.

Shyness is a source of social anxiety which interferes with an individual's ability to relate effectively with others and to function in social situations. It includes attitudes and feelings such as reticence and a lack of confidence particularly in new or unfamiliar social settings, excessive preoccupation with self in the presence of others, inadequate social skills, and disruptive anxiety and self-derogation in social situations (Jones & Russell, 1982, p. 629).

On the other hand, Loxley (1979) suggests that it is inappropriate to use shyness as a trait or label. Loxley asserts that 'shy people' do not exist. Instead Loxley simply describes shyness as a set of behaviors that have been learned by individuals who are inaccurately labeled as shy. In any case, its significance as a social concept is underscored by Zimbardo's (1977, p. 12) characterization of shyness as "...capable of being a mental handicap as crippling as the most severe of physical handicaps."

This diversity of perspectives on shyness reflects what Crozier (1979) describes as the framework of shyness emanating from a popular concept rather than from a research framework. In Crozier's view, shyness has received considerably more attention in popular literature than in scientific journals. There has been widespread acceptance of the concept of 'shyness' in popular works, but shyness, as a state or trait factor has received little acknowledgment in personality texts. Thus, although there has been a paucity of references on the topic of shyness in personality texts, the existence and importance of shyness is virtually unquestioned.

Based upon self-report surveys, some research indicates that shyness is highly prevalent in our society. For example, Zimbardo (1977) reported that among nearly 5000 individuals surveyed, 80 percent indicated that they had been shy at sometime in their life, and 42 percent indicated that they were presently shy. Shyness has been found to be prevalent among college students by others (Bryant & Trower, 1974; Pilkonis, 1977a). Again, using self-report measures, Pilkonis (1977b) reported finding a 41 percent rate of shyness in a college population, which is consistent with the figures cited by Zimbardo. Other researchers have found comparably high rates among fifth grade school children. The longitudinal stability of

shyness, as measured by timidity, among a group of children followed from ages 10 to 13, has also been found to be consistent over time (Backteman & Magnusson, 1981).

Shyness is experienced subjectively as an increase in the level of anxiety in social situations (Dixon, DeMonchaux, & Sandler, 1957). Anxiety in this context refers to an emotional state involving tension that one finds generally uncomfortable. This discomfort arises when the shy individual experiences feelings of awkwardness and discomfort in the presence of others (Buss, 1980). Objectively this form of anxiety includes physiological, behavioral and cognitive components which frequently elicit avoidance reactions as a means of minimizing the distress accompanying social interactions.

Social anxiety has been shown to be influenced by a variety of situational factors. For example, being the focus of attention, interacting with strangers, being under external evaluation, initiating heterosexual contact, interacting with persons in positions of authority (Zimbardo, 1977), and being in close interpersonal proximity (Carducci & Webber, 1979). Gender also may be related to shyness (Zimbardo, 1977), although results for a gender effect are equivocal (Jones, Briggs, & Smith, 1986). Another factor which may increase social anxiety is the amount

of ambiguity inherent within an interpersonal relationship (Buss, 1980; Zimbardo, 1977). The role of structure and ambiguity in relation to social anxiety has received little empirical investigation to date. As part of a doctoral dissertation, Pilkonis (1977a) studied the effect of structure (versus lack of structure) in the presentation of a speech in a heterosexual dyadic interaction. Pilkonis found an increase in subjective anxiety for those individuals who were given minimal structure.

Theoretical Foundation

Social learning theory as conceptualized by Bandura (1971) postulates that individuals use reinforcement as a way to educate and motivate themselves. By performing activities and observing those activities, as well as the reactions of others, the individual is able to generate hypotheses about the success or failures of behaviors. Through their learning history, people become able to anticipate the consequences of their actions. The ability to anticipate future consequences of behaviors comes about because of the cognitive capacity to understand and plan behavior. Modeling also is vital to learning many of these complex social competencies when experimentation alone could conceivably lead to deleterious consequences. According to Bandura,

observational learning requires a) attention to the model, b) retention of learned material, c) requisite motor skills, and d) reinforcement. According to this theory, an individual's ability to anticipate the effects of his or her behavior is a primary factor in determining the execution of behavioral output.

More recently, Bandura (1977) expanded his theoretical formulation to include that an estimate of one's ability to master behavioral skills will influence whether they persist at a particular behavior. Bandura (1977, p. 191) postulates that "...expectations of personal efficacy are derived from four principal sources of information: performance accomplishment, vicarious experience, verbal persuasion, and physiological states." The individual's perception of self-efficacy and skill level, coupled with performance incentives, largely determine that person's choice of behavioral alternatives.

Building on this model, Schlenker and Leary (1982) have proposed that social anxiety occurs when the individual is motivated to make a good impression on others but feels that they are unlikely to be able to do so. Individuals who have the greatest level of social anxiety are those who are highly motivated to make a good impression but believe that they will be unsuccessful.

Statement of the Problem

Shyness has been reported to include a significant portion of students attending college (Bryant & Trower, 1974; Zimbardo, 1977). Concomitant with the self-attribution of 'shyness' are avoidance of social activities (Buss, 1980), low self-esteem and sensitivity to the criticism of others (Nicholls, 1974), loneliness and depression (Anderson & Arnoult, 1985), and difficulty in establishing heterosexual relationships (Martinson & Zerface, 1970). While the college years often represent the first opportunity for young adults to practice independence, shyness can inhibit normal socializing which may in turn, negatively influence one's relationships.

This study is designed to answer the following questions: Do college students scoring high or low on a measure of shyness react differently to a structured versus ambiguous dyadic interaction in terms of their subjective experience of anxiety or their partner's impression of their anxiety? Secondly, Is performance subjectively viewed differently in relation to the amount of structure or ambiguity present by the student and their partner?

Significance of the Study

Researchers such as Buss (1980) and Zimbardo (1977) have suggested that social anxiety is elicited

in situations that are ambiguous. Individuals in new or unusual situations or settings experience more subjective discomfort than when they are in familiar situations or settings. Intuitively, this makes sense. It helps to explain how some actors, entertainers, and teachers can identify themselves as shy and yet pursue and be successful in a career requiring public performance (e.g., Katherine Hepburn, Carol Burnett) (Zimbardo, 1977). One explanation is that their performances are generally highly structured, rehearsed or scripted, and thus involve little ambiguity. Research in the area of shyness has identified individuals in prominent public positions who report high levels of shyness, and frequently discuss coping strategies used to minimize subjective anxiety. In the research to date, there is the suggestion that the role of structure and ambiguity does play a part in the level of perceived subjective anxiety for shy persons. This was demonstrated by Pilkonis (1977a) in evaluative situations. At present, there is little known about the role of structure vs ambiguity in dyadic interactions. It would follow that individuals involved in interactions with another individual would behave similarly based on the level of structure present. Although appealing, this hypothesis has received little empirical attention. Thus, this study provides a direct test of this common sense notion. If

the effects of structure are supported, it would provide evidence as to why some social situations trigger anxiety whereas others do not. This information, in turn, forms the basis for developing intervention strategies that would work to minimize anxiety and avoidance by building structure into otherwise ambiguous and perhaps threatening situations.

Definition of Terms

Anxiety

Anxiety is the subjective experience of discomfort, apprehension, tension, or uneasiness that results from the anticipation of danger or threat. Anxiety may be differentiated into two categories: anxiousness, which is a personal attribute not limited by situation or time, and anxiety, which is situation specific and time limited. In this study, anxiety was evaluated by the Anxiety subscale of the Multiple Affect Adjective Checklist--Today Form (Zuckerman & Lubin, 1965). In scoring the Anxiety subscale of the Multiple Affect Adjective Checklist -Today Form, scores range from a low of 10 to a high of 50. The higher the score, the more anxiety the subject was expressing.

Shyness Reactions

Shyness reactions reflect the subjective experience of state shyness for the individual. This includes the factors of; (a) worry, (b) distraction or

inattentiveness, (c) conversational passivity, and (d) somatic complaints. In this study shyness reactions were evaluated by the Shyness Reactions Measure (Briggs & Metz, 1985). This is an extension of the Shyness Reactions Index (Zimbardo, 1977).

Self-Evaluations

Self-evaluations represent the individual's subjective ratings of performance in the interview setting. These ratings reflect the subject's self-perception of his or her behavioral and emotional presentation during the interview. In this study, self-evaluations were measured by the Positive and Negative Affect Schedule (Watson, Clark & Tellegen, 1988). Self-evaluations were rated on scales consisting of (a) positive affect, and (b) negative affect. The positive affect scale consists of 10 adjectives which "...reflects the extent to which a person feels enthusiastic, active and alert" (Watson, Clark & Tellegen, 1988). In scoring the positive affect scale, scores range from a low of 10 to a high of 50. The higher the score, the more positive affectivity the subject was expressing. The negative affect scale consists of 10 adjectives which reflects "...subjective distress and unfavorable engagement..." (Watson, Clark & Tellegen, 1988). In scoring the negative affect scale, scores range from a low of 10 to a high of 50. The higher the score, the

more negative affectivity the subject was expressing.

Partner's Ratings

In addition to the subject's self-evaluations of their behavioral and emotional presentation, a second set of evaluations were collected from the subject's partner in the interaction. In order to compare the self-evaluations and the partner's ratings, both sets of ratings employed the same lists of 10 adjectives.

Limitations of the Study

The following limitations were inherent in this study.

1. This study utilized undergraduate students from a moderately sized private university in the southwest. Generalizability of these results to other populations may therefore be limited.

2. The subjective nature of the primary measures used in this study (self-report measures of social reticence, anxiety, and shyness reactions) represent a limitation in that measures from this perspective may not generalize to other modes of measurement (e.g., behavioral or physiological).

Hypotheses

The following hypotheses were delineated and tested at the .05 level of confidence.

H₁: There is a significant relationship between level of structure in the dyadic interaction and each

of the dependent variables.

Compared to their counterparts, participants in the structured interview will rate themselves as less anxious and more positively, will experience fewer negative shyness reactions, and will be rated more positively by their partners. In addition, confederates will rate themselves more positively in a structured setting.

H₂: There is a significant relationship between level of shyness and each of the dependent variables.

Compared to their high shy counterparts, participants low on shyness will rate themselves as less anxious and more positively, will experience fewer negative shyness reactions, and will be rated more positively by their partners. In addition, confederates coupled with low shy subjects will rate themselves as less anxious and more positive, will experience fewer negative shyness reactions, and will report less anxiety.

H₃: There will be a significant interaction between level of structure and degree of shyness regarding their effect on each of the dependent variables.

Those individuals high in shyness who are additionally placed in an unstructured setting will rate themselves as more anxious and in less favorable terms, experience more negative shyness reactions, and

should therefore be rated less positively by their partners.

Organization of the Study

Chapter I introduced the study and its theoretical foundation, stated the problem and its significance, defined terms, and specified the limitations of the study and the hypotheses to be tested. Chapter II contains a review of the literature. Chapter III presents the methodology and instrumentation used in the study. Chapter IV presents the results of the study. Chapter V discusses and summarizes the findings of the research and presents conclusions and recommendations for future research.

CHAPTER II

REVIEW OF LITERATURE

This review of the literature begins by describing early writings on shyness, and then focuses on the antecedents of shyness and the nature of shyness. Later sections discuss the relationship between shyness and anxiety, self-evaluation, shyness reactions and ambiguity.

Early Writings on Shyness

According to a recent review of the literature by Jones, Cheek, and Briggs (1986), research on shyness developed in three separate phases. Initially, a descriptive approach based on clinical and casual observation was employed to depict the subjective world of the shy and to present a characterization of representative behaviors. This descriptive approach appeared in the medical literature as early as 1896 when Campbell (1896) delivered a report on morbid shyness to the British Medical Society. Behavioral patterns of shy individuals were further addressed by Litwinski (1950). Litwinski discussed active and passive forms of shyness, in which contradictory patterns of shy behavior coexisted. At times shy individuals are quiet and at other times they appear

excessively talkative. At least for some individuals, then, shyness can manifest itself behaviorally in ways contrary to the expected reserved, quiet, and logical manner.

According to Jones et al. (1986), popularization represented the second phase in the study of shyness. In the 1970's a number of popular books intended for the layman were written on this topic (Phillips, 1981; Powell, 1979; Weber & Miller, 1979).

One of the more popular books was written by Zimbardo (1977). In addition to its public acclaim, this book has become perhaps the most widely referenced text in the field of shyness research. As a means of collecting a data base on the subject, Zimbardo developed the Stanford Shyness Survey. This survey was then administered to approximately 5,000 individuals in an effort to gather objective information about shyness. This book includes a discussion about the data generated by that survey, as well as general guidelines for the treatment of what Zimbardo found to be an extremely widespread phenomenon.

According to Jones et. al. (1986), the third and final phase in the study of shyness has been characterized by the utilization of a more empirical analysis of the construct. Jones et. al. (1986) point out that this phase has been occasioned by an increase in the number of published articles in referred

research journals. Researchers who have aided in conceptualizing shyness in more scientific terms include Buss (1980), Crozier (1979), Harris (1984), Leary (1982), Schlenker & Leary (1982). Much of this research has focused on the etiology, behavioral characteristics, social impact and subsequent treatment alternatives. Yet, despite these efforts the precept of shyness continues to elude researchers. As Pilkonis and Zimbardo (1979, p. 133) state "...shyness still remains a fuzzy concept that defies simple definition". There are, however, correlaries in other fields.

Stranger anxiety is a construct that shares many similarities with shyness. Psychoanalytic theory proposes that the emergence of stranger anxiety at approximately six to eight months of age follows the development of an infant's ability to differentiate the familiar from the unfamiliar human face. With the accompanying increase in memory function at this age, the child's ability to selectively distinguish mother from others is made possible. Mother represents the libidinal object of the drive for self-preservation. Strangers evoke responses that range from mild apprehension to fearful withdrawal (Rohwer, Ammon, & Cramer, 1974). Achenbach (1982, p. 36) postulated that stranger anxiety was likely a biologically based response to attachment: "This attachment system probably aids the survival of our species as well as

fostering social development by keeping babies near their caretakers". Behaviorally, shyness and stranger anxiety, also referred to as the wary/fear system, share common characteristics. According to Greenberg and Marvin (1982) the 'wary/fear system' includes gaze aversion, gaze avoidance, locomotor withdrawal, negative verbalization and ignoring strangers' requests. For the most part, children outgrow many of these aversive reactions to strangers by their second year.

There are, however, differences in children's reactions to the unfamiliar. According to Bronson (1978), some children, by about the age of nine months, appear more apprehensive around strangers than others. While most children overcome these adverse reactions, some children do not. As an interesting parallel between shyness and wariness, Zimbardo discusses one particularly relevant myth about shyness. "Shyness is assumed to be a natural stage which most children pass and grow out of" (Zimbardo, 1977, p. 20). Shyness is not a natural developmental stage of childhood. It is possible that excessive apprehension, fear, or shyness results from accumulated negative social interactions with strangers. All may have their roots in social learning history.

During childhood, one of the primary developmental tasks is that of socialization. An important component

of the socialization process is the ability to view the self as a social entity.

I have suggested elsewhere that we are the only animal to be aware of ourselves as social objects - that is, to possess a social self. Such public self-awareness appears to be a universal feature of socialization training. Children are taught that others are observing them, scrutinizing their appearance, manners, and other social behavior. After several years of such training, children develop the requisite social awareness and may be as aware of their own observable aspects as those around them. This tendency to focus on oneself as a social object is not present in infants because they lack not only socialization training but also the necessary cognitive ability, which is present only in older children and adults (Buss, 1986, p. 41).

Through social learning, the ability to view the self as a social object may be an important factor in distinguishing the stranger anxiety of infancy from the shyness of childhood and adulthood.

Antecedents of Shyness

Research in the area of shyness has postulated four basic models to account for the development of shyness; (a) the trait model, (b) the social skills deficit model, (c) the cognitive model, and (d) the

adaptability model.

For example, some theorists have suggested that shyness constitutes a personality trait present at birth and constant over time (Briggs & Metz, 1985; Cattell, 1973; Crozier, 1979). Support for this model has been provided by Bronson and Pankey (1977) who demonstrated that children's differences in the degree of expressed fearfulness among two year old children was related to the level of expressed fearfulness at the age of three and one half. The contribution of a genetic component for social inhibition was further supported by Plomin and Rowe (1973) who reported that behavioral inhibition to strangers had a greater concordance ratio among identical twins than fraternal twins.

The social skills deficit model suggests that social anxiety results when individuals find themselves in situations for which their repertoire of social skills are inadequate to the task demands of the social situation. Argyle, Henderson and Furnham (1985) believe that interpersonal relationships are goal directed interactions governed by implicit and explicit rules developed to maintain the relationship. This model also has found support from Bellack and Herson (1979), Curran (1977), and Zimbardo (1977). In particular, Twentyman and McFall (1975) found that shy males interacted with fewer women, in fewer situations,

for less time, and reported more anxiety than nonshy males. The reason for these differences was attributed to an absence of appropriate social skills.

However, support for this theory is equivocal. Although Martinson and Zerface (1970) found heterosexual shyness to be common in college settings, individual social skills remediation training alone did not appear to be an adequate therapy. Furthermore, Schlenker and Leary (1982) found few social skills deficits in dyadic interactions and reported that skill acquisition alone does not consistently reduce associated social anxiety.

The cognitive model takes into account the importance of the self as observer in the promotion and maintenance of social anxiety. As a result, the individual's self-perception of personal adequacy in social encounters theoretically mediates the experience in these encounters. Rehm and Marston (1968) suggest that an individual's cognitive self-perception of skill deficits produces social anxiety, even when social skills were intact. In a similar vein, Bandura (1969, p. 37) stated:

Many of the people who seek treatment are neither incompetent nor anxiously inhibited, but they experience a great deal of personal distress stemming from excessively high standards for self-evaluation, often supported by unfavorable

comparisons with models for their extraordinary achievements (p. 37).

Clark and Arkowitz (1975) found that social anxiety is related to negative self-evaluations and that socially anxious individuals simply underestimate their abilities. The role of self-attributions in the maintenance of social anxiety was further supported by Anderson and Arnoult (1985). These authors maintain that for the shy individual, attributions affect self-expectations, which influence motivation to engage in an activity and the subsequent performance.

Finally, the adaptability model of shyness suggests that the label itself may be utilized by the individual in order to control and minimize negative performances in an evaluative situation. Synder, Smith, Augelli, and Ingram (1985) found that males reported more anxiety symptoms in an evaluative situation when shyness could be used as an excuse for poor performance. Less anxiety symptoms were evident in nonevaluative situations or when shyness was not available as an excuse for poor performance. These authors describe the use of social anxiety symptoms as a self-handicapping strategy used as a means of self-protection. In a similar vein, Zimbardo (1977, p. 43) stated, "It is also possible to learn to be incompetent if incompetence gets you the attention you want." Accordingly, it is not uncommon for individuals to

report that they are shy and therefore unable to attempt situations that have a high potential for evaluation. In this view, shyness may be a more socially acceptable self-attribution than incompetence, which is attested to by the large number of individuals self-labeling as shy.

It is important to point out that the four models outlined above are not mutually exclusive. Shyness may well have a genetic component, which leads to a skills deficit component and a cognitive component, and is used also as a self-label to protect against anxiety in threatening situations. Perhaps these elements interact to produce the experience we call shyness.

Irrespective of the underlying etiology, shyness is experienced as an unpleasant state of physiological and emotional arousal in the context of social interactions. The term 'social anxiety' merely provides an objective view of the nature of shyness. Unlike individuals who have no desire for interpersonal contact (i.e. schizoid), the shy individual generally experiences a desire to be with others. In fact, shy people long for positive social interactions but may experience such anxiety in social situations that they become caught-up in an approach-avoidance paradigm.

Shy individuals are characteristically uncomfortable in social situations. This uncomfortableness is manifested by social embarrassment

(Mosher & White), inhibition (Cheek & Buss, 1981), and lack of self-confidence (Jones, Cheek & Briggs, 1986; Caplan & Caplan, 1983; Croizer, 1979; Suinn & Hill, 1964), with subsequent loneliness (Bernikow, 1986; Schmidt, Conn, Green & Mesirow, 1982), and depression (Izard & Hyson, 1986; Zimbardo, 1977). Pilkonis (1977b) found that shy individuals, when compared to nonshy individuals, behaviorally had a longer latency to first utterance, spoke less frequently and for a shorter period of time in dyadic interactions with members of the opposite sex. Further, Pilkonis reported that shy persons avoided eye contact, made fewer glances, and spent less percentage of time in eye contact when interacting. Many of these behavioral signs are similar to the descriptions given for stranger anxiety (i.e., minimal eye contact, distancing behaviors).

On a physiological level, shy students experience more autonomic arousal than confident students (Twentyman & McFall, 1975). Accompanying autonomic symptoms include perspiration, blushing, rapid pounding heartrate and 'butterflies' in the stomach (Fatis, 1983; Zimbardo, 1977).

Nature of Shyness

Shyness has been discussed by researchers under various terms. Cattell postulated the H- factor called threctia which indicates a high susceptibility to

threat. According to this theory, an individual with the H- trait is highly sensitive and has a more easily aroused nervous system which leads to withdrawal from threatening situations (Cattell, 1965). Other researchers have discussed the construct of shyness under the terms social timidity (Dixon, De Monchaux, & Sandler, 1957), non-assertiveness (Wolpe & Lazarus, 1966) social anxiety (Gormally, Varvil-Weld, Raphael & Sippy, 1981), and social reticence (Jones & Russell, 1982).

Shyness, whether termed social timidity, social anxiety, social reticence or threctia has applicability to a large number of individuals. Zimbardo found that 42 percent of 5000 persons surveyed considered themselves currently shy and approximately 80 percent stated they had been shy at some point in their life (Zimbardo, 1977, p. 13, 14). Similarity, Lazarus (1982) reported that 38 percent of fifth graders studied labeled themselves as shy. Pilkonis (1977b) reported 42 percent of college students characterized themselves as shy. Izard and Hyson (1986, p. 150) view shyness as a "universal emotion". Zimbardo (1977, p. 18) wrote, "Ultimately, you are shy if you think you are shy, regardless of how you act in public". The large numbers of individuals who characterize themselves as shy attest to the relevance of research in this area.

In an attempt to minimize the negative affective and physiological response engendered by social situations, a frequently employed coping strategy utilized by shy persons is that of avoidance and withdrawal. Watson and Friend (1969) state that the experience of distress and anxiety in social situations leads to a deliberate avoidance of those situations that produce anxiety. The avoidance of stressful interactions among shy individuals has been noted by Brown (1970), and Buss (1980). This tendency to avoid situations that create anxiety for the shy individual further limits their potential for rewarding interpersonal relationships. Cobb (1976) noted that while withdrawal does remove the individual from anxiety producing interactions, it also reduces the opportunity to engage in interactions that could be helpful. As such, the avoidance behaviors ability to provide immediate reduction of anxiety acts as a sustaining negative reinforcer. Mischel (1968) wrote:

Following intense arousal all kinds of avoidance behaviors generally ensue rapidly. Many of those escape efforts may be maintained persistently since they provide powerful reinforcing consequences, chiefly by terminating the painful autonomic emotional state (p. 202).

Physical withdrawal is not always possible. In some situations, such as in a work environment where

task demands require interaction, physical withdrawal is not an option. Schlenkler and Leary (1982) suggest that in such cases individuals may withdraw on a cognitive level to produce similar relief.

Withdrawal and avoidance behaviors may have immediate relief benefit for reducing anxiety, but for the shy individual they restrict available opportunities to develop the social contacts these individuals desire. It also limits the opportunity to improve and practice social skills that could eventually reduce social anxiety derived from skill deficits.

While, in general, the avoidance of social interactions produces long-term negative consequences, one positive consequence has been articulated. Traub (1983) reported that shy individuals tended to have higher grade point averages than nonshy individuals. Traub believed that the positive correlation between grade point average and avoidance of social interaction could further reinforce social avoidance.

Although avoidance of social interactions has been shown to be of temporary benefit at best, studies have found that shy individuals generally want to become less shy. Lazarus (1982), studying fifth graders, reported that of the 38 percent who reported being shy, 47 percent stated they would like to help to become less shy. Pilkonis (1977b) similarly found that a

large number of college undergraduates self-labeled as shy wanted to change. From the 41 percent of shy individuals questioned, 24 percent stated that they would be willing to seek help to become less anxious in social situations.

Treatment of Shyness

Therapeutic efforts to alleviate or suppress social anxiety have been concentrated in two major areas, social skills training and cognitive therapy. Social skills training is predicated on the skills deficit model. It is held that by improving social competence, anxiety associated with social interactions will be reduced. Support for social skills training intervention is evident in its position as the "...most popular approach for treatment of adjustment problems" (Cheek, Carpentieri, Smith, Rierdan, & Koff, 1986, p. 112).

As examples, social skill training has been utilized to improve cooperative interactions in children (Schneider & Byrne, 1987), dating success (Curran & Gilbert, 1975), conversational skills (Gormally, Varvil-Weld, Raphael & Sipps, 1981), improving self-esteem (Schaefer & Millman, 1981), and improving performance in heterosexual contacts (Twentyman & McFall, 1975). Social skills training implicitly provides the shy person with the rules necessary to interact successfully in situations that

otherwise may create performance anxiety.

As an alternative treatment model, cognitive therapy focuses on the impact of maladaptive thoughts that promote anxiety for shy persons. Beck and Emery (1979) point out that anxious individuals overly anticipate the likelihood of a negative outcome and underestimate their ability to cope in a given situation. Halford and Foddy (1982) found that individuals who become highly anxious in social situations had a greater incidence of cognitions associated with negative reactions than did individuals with low anxiety. One's negative cognitions and self-statements can thus be reinforced when attempts at social interactions do not produce the desired effect. Swann and Read (1981) reported that individuals are more likely to attend to social feedback that confirms their self-concept. If one anticipates failure in interpersonal situations, and it is encountered, these negative cognitions are then likely strengthened.

Cognitive therapy is based on the assumptions that internal dialogue (i.e., self-talk) contributes to the formation and maintenance of negative self-perception (Meichenbaum, 1977). Therapy focuses on identifying and modifying these self-statements and replacing them with more appropriate, positive self-statements. Support for the cognitive therapy approach for social anxiety includes Glass and Shea (1986), Goldfried

(1979), and Halford and Foddy (1982).

Aside from social skills training and cognitive paradigms, other therapeutic modalities have been formulated to reduce social anxiety. For example, hypnotherapy for childhood shyness (Gardner & Olnesr, 1981), and the suggestion to teach individuals to restructure social interactions (Pilkonis, 1977a) have been utilized. Perhaps a more intuitively obvious, but relatively neglected approach to treating social anxiety has been the employment of group therapy techniques. Pilkonis (1986) advocated the use of short term group therapy as a means for treating shyness in a social context. Although group therapy for the treatment of shyness has received little attention, it may be one of the more logical approaches to the treatment of social anxiety.

Shyness and Anxiety

Anxiety can be characterized as fear or apprehension emerging from the anticipation of threat to the self. Schlenker and Leary (1982, p. 642) defined anxiety as "...a cognitive and affective response characterized by apprehension about an impending, potentially negative outcome that one thinks one is unable to avert". One of the critical elements in the experience of anxiety in social situations for the shy is the stress associated with evaluations from others. Leary maintains that social anxiety is the

"...state of anxiety resulting from the prospect or presence of interpersonal evaluation in real or imagined social settings" (Leary, 1983, p. 67). Individuals innately appear motivated to make a particular impression on others. When they are concerned that the impression made will be negative, the potential for anxiety is increased (Schlenker & Leary, 1982). Thus, a greater anticipation of a negative evaluation from others in social encounters can negatively impact performance in these situations. Smith, Ingram and Brehem (1983) found that an increase in cognitive activity in an evaluative situation reflects concern of the perception of others. Brockner (1979) reported that this concern in highly anxious subjects subsequently reduces one's ability to attend to a task.

Leary (1983) distinguished social anxiety from social anxiousness. Social anxiousness, in this sense, may be viewed as a trait in which anxiety is experienced across situations and time. Social anxiety, by contrast, is situationally specific and time limited. Support for this distinction comes from a number of researchers in area of social anxiety. Social anxiety has been demonstrated to be increased by novelty (Buss, 1980); authority figures (Schlenker & Leary, 1982); interactions with members of the opposite sex (Cheek & Buss, 1981); giving a speech (Zimbardo,

1977); and in ambiguous situations (Pilkonis, 1977a). In contrast, Zimbardo reported situations which make people less shy, including interactions with ones parents, friends and one-to-one interactions with members of the same gender (Zimbardo, 1977). The situational, time limited nature of social anxiety thus provides an opportunity to investigate the activities that tend to raise or lower anxiety in shy individuals.

Shyness and Self-Evaluations

Since shy individuals experience anxiety in situation specific evaluative encounters it seems logical to predict that the need for self-evaluation may play a critical role. Research in the area of shyness and self-evaluation tends to support this view. Smith and Sarason (1975) investigated the differences in self-evaluative measures following a role-playing experiment. The results demonstrated that persons high in social anxiety rated themselves as significantly more likely to receive a negative evaluation than subjects from either low or moderate socially anxious groups.

In a similar vein, Franzoi (1983) investigated the self-concept of subjects who were rated high, medium or low in social anxiety. Franzoi found that highly anxious subjects presented themselves in a modest light significantly more so than the low or medium social anxiety groups. Franzoi speculated that the modest

self-presentation may reflect an attempt to avoid embarrassment. In evaluating conversational skill with opposite sex partners males with high social anxiety were overly self-critical and evaluated themselves as having less social skills than did low socially anxious males (Clark & Arkowitz, 1975).

The studies in the area of social anxiety and self-evaluation suggest that, for those individuals with greater levels of social anxiety, there is a strong potential to rate oneself poorly. This may result in negative self-feedback which may, in turn, increase social anxiety.

Shyness and Shyness Reactions

In order to investigate the properties of social encounters the "self" as observer must be taken into account. As part of the Stanford Shyness Survey (Zimbardo, 1977, p. 134-145), shyness reactions were investigated to evaluate the 'state' experience of shyness. Zimbardo views shyness as occurring on a continuum from not shy to chronically shy (p. 19). Since shyness engenders cognitive, behavioral, and physiological properties, the utility of information concerning the individual's self-report of these various aspects in specific situations would help to establish a relationship between self-measures and objective ratings of state anxiety.

Fatis (1983) used a modified version of the

shyness Reaction's portion of the Stanford Shyness Survey. Fatis divided subjects into three groups, shy, occasionally shy (fifty percent of the time), and not shy (do not consider themselves presently shy). In comparison with other groups, the shy subjects reported more cognitive preoccupation with the unpleasantness of the situation, on the evaluation of others and on thoughts of personal inadequacy. On a physiological level, shy subjects reported significantly more unpleasant physical sensations such as heart pounding, rapid pulse, perspiration, blushing and 'butterflies' in the stomach. On a behavioral level, shy subjects reported a significantly greater tendency to avoid others, a reluctance to talk, and an inability to make eye contact.

The situational specificity of social anxiety logically suggests an individual's cognitive, physiological and behavioral reactions would vary in relation to the subjective level of anxiety. The value of including these indices in a study investigating the relationship between shyness and structured vs. unstructured social interactions has inherent potential for providing an objective measure of these components.

Shyness and Ambiguity

The role of ambiguity, or the relative absence of structure in social interactions, has been suggested as a precipitant of social anxiety (Buss, 1980; Zimbardo,

social contexts when we meet strangers; we are usually cautious and inhibited, hiding our social behavior behind a facade of formality, politeness, and cliches." It is in the novel situation that social skills are perhaps most required in order to provide a road map for appropriate behavior.

Although the role of structure vs. ambiguity has been presumed to significantly influence the level of social anxiety in shy individuals, its objective, systematic investigation has received little attention in the literature to date. One such investigation was conducted by Pilkonis (1977a), who investigated the relationship of structure and unstructure within dyadic interactions between members of the opposite sex. Shy and not shy undergraduate students were selected as subjects and were told that the purpose of the experiment was to find ways to improve techniques for soliciting blood donations.

In the unstructured group, subjects were paired with a confederate of the opposite sex and waited five minutes while video tape equipment was purportedly repaired. The confederate was instructed to reply in a neutral fashion to the subjects attempts at conversation. In the next portion of the study, the experimenter returned and stated that he was interested in persuasive communication. Subjects were told that they would view and rate video tapes of earlier

speeches and then deliver their own speech which could then be evaluated. In the structured group, pamphlets and brochures were provided to the subjects. In the unstructured group, no other aides were provided to assist them in their preparation.

Results of the Pilkonis study indicated that shyness was significantly influenced by the degree of structure. The study suggested that shyness is less of a problem in situations where task demands and role requirements were more clear than in ambiguous situations.

The study by Pilkonis (1977a) provided an important first step in the objective evaluation of the role structure and nonstructure plays in social anxiety for the shy. One limitation of the study involved the task requirements themselves. The Pilkonis situation imposed a relatively high degree of threat. Zimbardo reported that the results of the Stanford Shyness Inventory looked at people and situations that individuals rate as making them shy. In this classification, "strangers" ranked first among people who make one feel shy and "opposite sex" ranked second. Among situations that make one shy, "Where I am the focus of attention-large group (as when giving a speech)" ranked first (Zimbardo, 1977, p. 37).

The purpose of the present study is to extend Pilkonis' work and to reduce the amount of threat in

the situation and to control potentially confounding variables by carefully specifying the amount of structure available.

Summary

The concept of shyness has been described in literature for almost a century (Campbell, 1896). However, it was not until the 1970's that a number of publications intended for general consumption surfaced that concerted efforts to research this topic emerged (e.g. Zimbardo, 1977). This area of study was followed by a more empirical investigation of shyness where research focused on etiology, behavioral characteristics, social impact, and treatment alternatives (Jones, Cheek, & Briggs, 1986).

At present, shyness appears to be most adequately viewed in behavioral terms, as evidenced by the tendency to be increasingly anxious, tense, and uncomfortable in social situations, particularly in the presence of strangers (Cheek, et al., 1986). The cognitive model specifically addresses the importance of self-as-observer of social feedback in the promotion and maintenance of social anxiety (Bandura, 1969). The role of ambiguity in social situations has also been identified as contributory to an increase in the subjective perception of anxiety for shy individuals (Buss, 1980; Zimbardo, 1977). Research in this area which specifically addresses the degree of structure in dyadic interactions is limited (Pilkonis, 1977a).

CHAPTER III

METHOD

The purpose of this study was to investigate the relationship between shyness, structure/ ambiguity, anxiety, self-evaluation, and shyness reactions. This chapter discusses the subjects studied in this investigation as well as the instruments used to measure shyness, anxiety, self-evaluation, and shyness reactions. Methods employed in this study is discussed including selection of subjects, experimental design, treatment procedures, and statistical analysis.

Subjects

The study employed 43 (n = 11 males, 32 females) undergraduate students from a moderate sized private university in the southwestern United States. The subjects were enrolled in undergraduate psychology courses and volunteered to participate in the study with an incentive of receiving a small amount of extra credit for their participation. The subjects were stratified into two groups; low and high shy based on shyness scores as measured by the Social Reticence Scale (Jones & Russell, 1982). Scores for the total group of students evaluated with the Social Reticence Scale ranged from a low of 20 to a high of 91. Based

upon minor, although nonsignificant differences in performance separate cutoff scores were established for males and females. The mean for female scores = 48.8, standard deviation = 13. Using one standard deviation as a cutoff score, females with a score on the Social Reticence Scale below 35 were classified as low shy and females with a score above 62 were classified as high shy. The mean for male scores = 49.6, standard deviation = 13. Using one standard deviation as a cutoff score, males with a score on the Social Reticence Scale below 36 were classified as low shy, scores above 63 were classified as high shy. Initial screening of 257 undergraduate students using the Social Reticence Scale yielded 72 (n = 19 males, 53 females) potential subjects of which 42 were classified as low shy and 30 subjects were classified as high shy. Assignment to the structured vs. unstructured condition was then made on a random basis. In the present study 21 subjects were used in the high shy sample, and 22 subjects were used in the low shy sample. The academic levels of subjects employed in this study included 7 freshman, 24 sophomores, 8 juniors, and 4 seniors.

Instruments

The Social Reticence Scale

The Social Reticence Scale (Jones & Russell, 1982) was selected as the screening instrument to assess the subjects level of shyness. The Social Reticence Scale

is a 20-item self-report instrument in paper-and-pencil format. For each item, a five-point Likert-type response format is used and consists of five choices which rate the degree or presence of the behavior in question; (a) 1 = not at all characteristic, (b) 2 = slightly characteristic, (c) 3 = moderately characteristic, (d) 4 = very characteristic, and (e) 5 = extremely characteristic. The Social Reticence Scale is scored with a scoring key and half of the 20 items are scored in the reverse order to avoid response bias. The higher the score the greater the amount of shyness. Scores range from a low of 20 to a high of 100.

Reliability. Reliability information presented in the manual for the Social Reticence Scale (Jones & Russell, 1982) based on a sample of 252 college students, was provided. Internal reliability was satisfactory with a coefficient alpha of .91 and a mean interitem correlation of $r = .33$ (range = .05 to .76). Test-retest correlation for a sample of 101 college students completing the Social Reticence Scale twice in eight weeks was .81 for men, .89 for women and .87 for men and women combined.

Validity. Convergent validity measures provided in the manual indicate that from the sample of 252 college students the correlation between Social Reticence Scale total scores and shyness self-labelling was $r(250) = .67, p < .01$. Individual Social Reticence

Scale items were significantly correlated with shyness self-labelling and correlations ranged from .22 to .56, with a mean of .40.

Concurrent validity was analyzed to compare the Social Reticence Scale with other measures of shyness or similar constructs the responses of 52 college students who were administered the Shyness and Sociability Scales (Cheek & Buss, 1981), the Interpersonal Anxiousness, and Audience Anxiousness Scales (Leary, 1982); and the Social Avoidance and Distress, and Fear of Negative Evaluation Scales (Watson & Friend, 1969) were presented in the SRS manual. Results of correlations of the Social Reticence Scale with Shyness and Sociability Scales was $-.64, p < .01$, Interpersonal Anxiousness Scale $.78, p < .01$ and Audience Anxiousness Scale $.55, p < .01$. Correlations of the Social Reticence Scale and Social Avoidance and Distress was $.55, p < .01$; and Fear of Negative Evaluation was $.44, p < .01$.

Discriminant validity was similarly measured. In one study by Jones, Briggs, and Smith (1986), a sample of 130 college students completed the Social Reticence Scale and the Fear Survey Schedule (Geer, 1965). The Fear Survey Schedule measures some social fears and non-social fear. The correlation between the Social Reticence Scale and Social Fears was $r(128) = .30, p < .01$; correlations between the Social Reticence Scale and

non-social fears was not significant, $r(128) = -.01$.

The Multiple Affect Adjective Check List

The Multiple Affect Adjective Check List (Zuckerman & Lubin, 1965) was employed in this study to obtain a measure of state anxiety. The MAACL is a 132 item list of adjectives describing both positive and negative attributes arranged in alphabetical order. Respondents are instructed to mark a box next to the adjective that describes how they feel today. There are two forms of the MAACL, the General and the Today form. The Today form is a measure of state anxiety and was chosen for use in this study because of its ability to measure change in affect over a brief period of time. According to the manual for the MAACL, adjectives chosen require a reading level at or above the eighth grade level to minimize ambiguity (Zukerman & Lubin, 1965). The MAACL further provides measures of anxiety, depression, and hostility. As a result, the MAACL has been recommended for studies of stress and stress reduction, diagnosis and treatment of psychological disorders, and research in personality and emotions (Sweetland & Kryser, 1986). For the purposes of this study, only the Anxiety Scale was used. T scores are provided based upon raw scores. The greater the raw score, the greater the T score, as well as the subsequent amount of anxiety experienced.

Reliability. Reliability measures for the MAACL Anxiety Scale were based on reports for a sample of 46 college students. Split half reliability was .79, $p < .01$ and test-retest reliability after seven days was reported to be .21, nonsignificant (Zuckerman and Lubin, 1965). The low test-retest reliability likely indicates the tests ability to discriminate temporary anxiety states which are subject to fluctuation.

Validity. Concurrent validity studies using the MAACL Anxiety Scale and the Lubin Depression Scale (Lubin, 1965) yielded a correlation of .34, $p < .05$, $N = 75$. Correlations with the Taylor Manifest Anxiety Scale (Taylor, 1953) and MAACL Today Form anxiety scale for college students was reported at .29, $p < .01$, $N = 50$ in the MAACL manual. Additional concurrent validation studies reported in the manual for the MAACL Today form anxiety scale, in contrast to Cattell's IPAT yielded a value of .55, $p < .01$, $N = 22$.

Finally, the MAACL Anxiety Scale scores were correlated with performance on the Gough Adjective Checklist as a means of addressing its validity with respect to a personality trait measure. Results indicated that "high" MAACL Anxiety Scale scores are associated with dependency, poor social adjustment or social motivation, lack of self-acceptance, poor insight, hostility, and ego-weakness.

Positive and Negative Affect Schedule

The Positive and Negative Affect Schedule (PANAS) (Watson, Clark & Tellegen, 1988) was employed in this study to obtain a measure of perceived positive and negative affect. The PANAS is a 20-item self-report paper-and-pencil instrument which lists adjectives describing both positive and negative affect. The test is a Likert-type scale consisting of five choices: (a) not at all = 1, (b) a little = 2, (c) moderately = 3, (d) quite a bit = 4, and (e) very much = 5.

Subjects were instructed to rate the adjectives based upon their perception of their own behavior during the interview. In addition, confederates were instructed to provide self-ratings of their behavior during the interview, as well as to provide ratings of the subjects' behavior.

The Positive and Negative Affect Schedule was evaluated for reliability and validity with seven temporal instructions. Temporal instructions included; (a) "right now" (moment instructions), (b) "today" (today), (c) "during the past few days" (past few days), (d) "during the past week" (week), (e) "during the past few weeks" (past few weeks), (f) "during the past year" (year), (g) "in general, that is, on the average" (general) (Watson, Clark & Tellegen, 1988). The present study employed the temporal framework of moment instructions. The PANAS was tested for

reliability and validity for the moment instructions using a group of heterogeneous students from Southern Methodist University (Watson, Clark & Tellegen, 1988)

Reliability. The PANAS (moment instructions) demonstrate high internal consistency with coefficient alpha of .89, and .85, $n=660$, for the positive affect scale and the negative affect scale of the PANAS respectively (Watson, Clark & Tellegen, 1988). The correlation between the positive affect and negative affect scales was $-.15$. Test-retest correlation, using a heterogeneous group of 101 students from Southern Methodist University was $.54$, $p < .05$, for the positive affect scale, and $.45$ for the negative affect scale, which suggested a significant level of stability.

Validity. Concurrent validity studies using the PANAS and Beck Depression Inventory (Beck, 1961) yielded a correlation of $-.36$, $p < .05$ for the positive affect scale, and $.58$ for the negative affect scale, $p < .01$, $n = 208$. Correlations with another measure of distress and psychopathology, the Hopkins Symptom Checklist (Derogatis, 1974) yielded correlations of $-.19$, $p < .05$ for the positive affect scales, $p < .001$, $n = 398$.

Six additional adjectives describing shyness were selected from the Social Reticence Scale and incorporated with the PANAS (Jones & Briggs, 1986). These adjectives were used to measure the effects of

structure in this experimental paradigm. The same Likert-type scale used to rate adjectives in the PANAS was used to rate the shyness adjectives. Internal consistency for the shyness adjective rating was .8526 using data generated from this study, based on Chronbach's Coefficient of Internal Consistency (Chronbach, 1971).

Shyness Reactions Survey

The Shyness Reactions Survey (Briggs & Metz, 1985) is an expanded version of the Shyness Reactions index of the Stanford Shyness Survey (Zimbardo, 1977). The Shyness Reactions Survey is a 28-item self-report paper-and-pencil measure. The instrument was labeled Reaction Survey in the present study to avoid introducing any bias and utilized a Likert-type scale consisting of five choices for each item, (a) 1 = not at all, (b) 2 = not much of the time, (c) 3 = half of the time, (d) 4 = much of the time, and (e) 5 = almost constantly. Subjects are directed to mark the degree to which certain actions or feelings were experienced during the interview (for example, "took an active role in the conversation" item number three).

Factor analysis of this instrument indicates that it consists of four main components (a) worry, (b) distraction, (c) conversational passivity, and (d) somatic complaints. Examples of items of each factor category include: Factor A, worry, "worried the other

person would form an inaccurate (and negative) impression of me" (item number one); Factor B, distracted, "tired" (item number two); Factor C, conversational passivity, "took an active role in the conversation" (item number three); Factor D, somatic complaints, "heart was pounding" (item number four).

In an attempt to develop a reliability estimate for this instrument, Chronbach's Coefficient of Internal Consistency was carried out on the ratings generated by this study (Chronbach, 1975). Results of the reliability analysis yielded alpha coefficients for each of the components as follows; (a) worry = .9076, (b) distraction = .5178, (c) conversational passivity = .7310, and (d) somatic complaints = .8232. These results indicate a high degree of internal consistency with the exception of component (b) distraction. Due to the low internal consistency of this component it was eliminated from further analysis in this study. Overall alpha coefficient for the remaining three components was .8209.

Validity. Validity studies have correlated the Shyness Reactions Survey with the Social Retidence Scale (Jones & Russell, 1982) and the Rosenberg Self-Esteem Scale. Correlations were found to be significant at the $p < .05$ level for the total score of the Shyness Reactions Survey and both the scores on the Social Retidence Scale and Rosenberg Self-Esteem.

Research Design

The study involves a 2 x 2 factorial design with the two between groups factors being low shy vs. high shy and structured vs. unstructured. This design permitted random assignment of subjects into the structured vs. unstructured condition (Linton & Gallo, 1975). Pretest scores on the MAACL were tested for mean differences across groups. Pretesting with the MAACL was essential to determine the change in the subjects resting anxiety level due to participation in the experiment. Pretest MAACL scores were then covaried out of the posttest scores. While pretest-treatment interaction represents a potential problem in this design, the impact of the measure itself is felt to be minimal due to the apparent non-relation of the pretest to the treatments.

Procedures

Two hundred fifty-seven prospective subjects were given the Social Retidence Scale (Appendix B) in classrooms approximately one month prior to the treatment phase of this study. Scores on this instrument were used to define two groups of potential subjects, "high-shy" subjects and "low-shy" subjects. For purposes of this study, "high-shy" subjects are defined as individuals scoring at or above one standard deviation from the mean on the Social Retidence Scale;

"low-shy" subjects are defined as individuals scoring at or below one standard deviation below the mean, based on data collected by Jones and Russell (1982).

Using a random numbers table, a stratified sample of 21 high-shy students (n = 8 males, 13 females) were randomly assigned to one of two treatment conditions (structure vs. unstructure). A total of 22 (n = 3 males, 19 females) low-shy subjects also were assigned to one of the two treatment conditions by the same means. Thus, 43 subjects in all were evaluated in this study.

Subjects were requested to participate in an investigation of interviewing styles. Participation was voluntary and a small amount of extra credit was provided to each subject in the psychology course in which they were currently enrolled. When subjects appeared for the "task portion" of the experiment they completed a consent form (Appendix A), and a MAACL (Appendix C) to obtain a baseline measure of state anxiety.

Subjects were then handed assignment instructions typed on a three x five card to explain the nature of the task (Appendix D). Subjects then conducted either a structured interview with the aid of a list of prepared questions that could be asked of interviewees (Appendix D), or a nonstructured interview without the aid of prepared questions. The interview lasted for

eight minutes. Subjects interviewed confederates of the same gender selected from volunteer upperclass undergraduate students. In that the literature indicates that anxiety is exacerbated for shy individuals in heterosexual encounters, subjects were paired with confederates of the same gender to avoid any potential confound. The confederates were unaware of the purpose of the study, the degree of shyness associated with each subject and the manipulation of structure. Interviews occurred in the privacy of an office with only the confederate and subject present.

At the conclusion of the interview subjects were given a packet containing a MAACL (Zuckerman & Lubin, 1965), Shyness Reactions Survey (Briggs & Metz, 1985), (Appendix E), and the Positive and Negative Affect Schedule (Watson, Clark & Tellegen, 1988) (Appendices F). Subjects were reminded that confidentiality would be maintained and asked to read the directions on each sheet provided and to answer as honestly as possible. Following the completion of the instruments subjects were provided with a debriefing form describing the nature and purpose of this study, and were then provided the opportunity to ask additional questions.

Confederates consisted of two males and four females that participated in the experiment as interviewees. Confederates were told the purpose of this study was to investigate differences in

interviewing styles. They were instructed to answer questions posed, but to avoid taking the position of interviewer. Confederates were randomly assigned and alternated such that no confederate would participate in more than two interviews in a one four period. In part, to control for boredom effect. In addition, there was generally more than one confederate available at any time to allow for "rest periods". Prior to the beginning of this study, each confederate participated in two practice interviews to insure an understanding of their role as an interviewee. Following the interview confederates completed a Shyness Reactions Survey and two forms of the Positive and Negative Affect Schedule. At the conclusion of the study confederates were then debriefed as to the nature and intent of this experiment (Appendix I).

Analysis of Data

Eighteen separate 2-way ANOVA'S were used to analyze the data generated from this experiment. Initially, a two x two ANOVA was used to analyze pretest scores on the MAACL in an effort to measure the success of random assignment to the structure (i.e. structure vs. unstructure) condition and to assess the influence of shyness (low vs. high) on this measure of state anxiety. A second 2-way ANCOVA examined differences on the posttest MAACL scores with the pre-

test scores covaried out (Tabachnick & Fidell, 1983). In addition, separate 2-way ANOVA'S were used to analyze the subjects' responses on the Shyness Reaction Survey and the Positive and Negative Affect Schedules. Additional 2-way ANOVA were used to examine the evaluations of the subject by the partner. Levels of significance were set at $\alpha = .05$ for main effects (structure and shyness) on each of the dependent measures (i.e., posttest MAACL; Shyness Reaction Survey, self and other evaluation measures on the Positive and Negative Affect Schedule and Shyness adjectives).

CHAPTER IV

RESULTS

The purpose of this chapter is to present the statistical analysis utilized to test the three hypotheses. The goal of this study was to examine the relationship between the independent variables, degree of structure and level of shyness, and the dependent variables, shyness and anxiety ratings of subjects and confederates. For clarity of presentation the analyses will be organized under each of the main hypotheses with assessment of self-ratings followed by ratings of confederates.

Hypotheses

H₁: There is a significant relationship between level of structure in the dyadic interaction and each of the dependent variables.

Subjects Self-Rating

The experimental manipulation of structure vs. unstructured dyadic interview setting failed to significantly affect the self-rating of subjects on positive affect ($F(1, 39) = .562, ns$), negative affect ($F(1, 39) = .428, ns$) and degree of shyness ($F(1, 39) = .425, ns$). In addition, there is no significant difference in the level of shyness reactions

TABLE 1

SUBJECT SELF-RATINGS

CELL MEANS, F RATIOS FOR 2 X 2 ANOVA'S BY HYPOTHESIS AND R2

| RATINGS | CELL MEANS | | n | H1 | H2 | H3 | R2 | |
|----------------------------|------------|-------|-------|------------|----------|-----------------|----------|------|
| | ST | UNST | | ST vs UNST | HS vs LS | INTERACTION | | |
| POSITIVE AFFECT | LS | 38.8 | 38.2 | 43 | .562, ns | 18.407, p< .000 | .193, ns | .328 |
| | HS | 31.2 | 28.8 | | | | | |
| NEGATIVE AFFECT | LS | 11.5 | 13.2 | 43 | .428, ns | 6.809, p< .013 | .331, ns | .157 |
| | HS | 16.0 | 16.1 | | | | | |
| SHYNESS | LS | 8.52 | 10.26 | 43 | .425, ns | 31.790, p< .000 | .890, ns | .448 |
| | HS | 15.78 | 15.48 | | | | | |
| SHYNESS REACTIONS - WORRY | LS | 14.58 | 15.21 | 43 | .024, ns | 8.532, p< .006 | .220, ns | .179 |
| | HS | 20.69 | 20.34 | | | | | |
| - CONVERSATIONAL PASSIVITY | LS | 10.08 | 11.28 | 43 | .396, ns | 17.771, p< .000 | .279, ns | .318 |
| | HS | 15.00 | 15.12 | | | | | |
| - SOMATIC COMPLAINTS | LS | 10.29 | 10.71 | 43 | .208, ns | 3.007, ns | .632, ns | .074 |
| | HS | 13.93 | 12.11 | | | | | |
| ANXIETY - MAACL | LS | 28.35 | 30.87 | 43 | .034, ns | 11.985, p< .001 | .482, ns | .308 |
| | HS | 39.90 | 38.43 | | | | | |

LS = LOW SHY, HS = HIGH SHY; ST = STRUCTURED INTERVIEW, UNST = UNSTRUCTURED INTERVIEW

experienced by subjects whether placed in structured or unstructured interviews in terms of worry ($F(1, 39) = .024, ns$); conversational passivity ($F(1, 39) = .396, ns$); and somatic complaints ($F(1, 39) = .208, ns$) (see table 1).

The amount of anxiety endorsed on the MAACL did not differ significantly as a result of the function of structure ($F(1, 39) = .034, p, ns$) (see table 1).

Confederates Self-Ratings

Confederates ratings of their own reactions also did not differ as a function of the degree of structure whether measured in terms of positive affect ($F(1, 39) = .538, ns$); negative affect ($F(1, 39) = .233, ns$); shyness ($F(1, 39) = 1.00, ns$); worry ($F(1, 39) = .90, ns$); conversational passivity ($F(1, 39) = 1.316, ns$); or somatic complaints ($F(1, 39) = 1.776, ns$) (see table 2).

Confederates Ratings of Subjects

The experimental manipulation of structured vs. unstructured dyadic interview setting failed to significantly affect the confederates rating of the subject in terms of positive affect ($F(1, 39) = .857, ns$). However, the confederates rated subjects in the unstructured interview setting as presenting with significantly greater negative affect ($F(1, 39) = 7.041, p < .01$), and subjects in the unstructured interview tended to be rated by confederates as being

TABLE 2

CONFEDERATE SELF-RATINGS

CELL MEANS, F RATIOS FOR 2 X 2 ANOVA'S BY HYPOTHESIS AND R2

| RATINGS | CELL MEANS | | n | HYPOTHESES | | | R2 | |
|-------------------------------|------------|-------|-------|--------------------|------------------|---------------------|----------------|------|
| | ST | UNST | | H1 (ST vs UNST) | H2 (HS vs LS) | H3 (INTERACTION) | | |
| POSITIVE AFFECT | LS | 33.1 | 30.3 | 43 | .583, ns | 7.664, p< .009 | 1.891, ns | .170 |
| | HS | 27.5 | 28.4 | | | | | |
| NEGATIVE AFFECT | LS | 7.98 | 7.28 | 43 | .233, ns | 6.154, p< .006 | 4.512, p< .040 | .135 |
| | HS | 8.12 | 9.31 | | | | | |
| SHYNESS | LS | 10.56 | 10.98 | 43 | 1.000, ns | 8.370, p< .006 | 1.16, ns | .195 |
| | HS | 12.42 | 13.44 | | | | | |
| SHYNESS REACTIONS - WORRY | LS | 12.06 | 11.61 | 43 | .090, ns | 5.079, p< .030 | .009, ns | .116 |
| | HS | 14.58 | 14.49 | | | | | |
| - CONVERSATIONAL PASSIVITY | LS | 14.70 | 16.26 | 43 | 1.316, ns | .112, ns | .158, ns | .035 |
| | HS | 14.82 | 15.54 | | | | | |
| - SOMATIC COMPLAINTS | LS | 4.24 | 4.00 | 43 | 1.776, ns | 7.375, p< .010 | .034, ns | .187 |
| | HS | 4.92 | 4.56 | | | | | |

LS = LOW SHY, HS = HIGH SHY; ST = STRUCTURED INTERVIEW, UNST = UNSTRUCTURED INTERVIEW

more shy ($F(1, 39) = 3.689, p < .06$) (see table 3).

H₂: There is a significant relationship between level of shyness and each of the dependent variables.

Subjects' Self-Rating

Those subjects selected for a high degree of shyness rated themselves as significantly lower on positive affect ($F(1, 39) = 18.407, p < .000$), while in turn, rating themselves higher in negative affect ($F(1, 39) = 6.809, p < .013$), and higher on degree of shyness ($F(1, 39) = 31.79, p < .000$) than their low shy counterparts. They also endorsed a significantly greater degree of worry ($F(1, 39) = 8.532, p < .006$), and significantly greater conversational passivity ($F(1, 39) = 17.771, p < .000$) compared to low shy subjects. However, there was no significant difference between high shy and low shy subjects on their endorsement of somatic complaints ($F(1, 39) = 3.007, ns$) (see table 1).

High shy subjects endorsed a significantly greater degree of anxiety as measured by the MAACL on both pre and post testing ($F(1, 39) = 75.533, p < .001$), and ($F(1, 39) = 11.985, p < .001$) respectively. However, when pretest anxiety measures were covaried out on post test analysis of anxiety, no significant difference between high shy and low shy subjects was evident ($F(1, 39) = .291, ns$). Thus, many of the anxiety reactions experienced by high shy subjects were apparently

TABLE 3

CONFEDERATE RATING OF SUBJECTS

CELL MEANS, F RATIOS FOR 2 X 2 ANOVA'S BY HYPOTHESIS AND R2

| RATINGS | CELL MEANS | | n | HYPOTHESES | | | R2 | |
|-----------------|------------|-------|-------|--------------------|------------------|---------------------|-----------|------|
| | ST | UNST | | H1 (ST vs UNST) | H2 (HS vs LS) | H3 (INTERACTION) | | |
| POSITIVE AFFECT | LS | 31.50 | 29.50 | 43 | .857, ns | 3.920, p< .055 | .012, ns | .111 |
| | HS | 27.40 | 25.80 | | | | | |
| NEGATIVE AFFECT | LS | 11.80 | 13.50 | 43 | 7.041, p< .011 | 8.636, p< .006 | 1.337, ns | .285 |
| | HS | 13.70 | 17.80 | | | | | |
| SHYNESS | LS | 12.12 | 12.38 | 43 | 3.689, p< .062 | 8.734, p< .005 | .854, ns | .242 |
| | HS | 14.58 | 18.18 | | | | | |

LS = LOW SHY, HS = HIGH SHY; ST = STRUCTURED INTERVIEW, UNST = UNSTRUCTURED INTERVIEW

present at the outset, such that little additional anxiety (if any) was experienced as a direct product of the manipulation (see table 1).

Confederates' Self-Rating

Confederates, when coupled with high shy subjects rated themselves as having significantly less positive affect ($F(1, 39) = 7.664, p < .009$), significantly greater negative affect ($F(1, 39) = 6.514, p < .015$), and a significantly greater amount of perceived shyness ($F(1, 39) = 8.37, p < .006$). In addition, when coupled with high shy subjects the confederates endorsed a significantly greater amount of worry ($F(1, 39) = 5.079, p < .030$), and somatic complaints ($F(1, 39) = 7.375, p .010$) as compared with those confederates coupled with low shy subjects. Confederates endorsement of conversational passivity did not differ significantly for those coupled with high vs. low shy subjects ($F(1, 39) = 1.316, ns$) (see table 2).

Confederates Rating of Subjects

Confederates ratings of their high shy counterparts was not significantly different for positive affect ($F(1, 39) = 3.920, p < .055, ns$). Significantly greater negative affect ($F(1, 39) = 8.636, p < .006$); and significantly greater shyness ratings were, however, apparent in confederate ratings of high shy subjects ($F(1, 39) = 8.734, p < .005$) (see table 3).

H₃: There is a significant interaction between both main effects (i.e., structure and degree of shyness).

Subjects' Self-Rating

There were no significant interactions between the amount of structure and degree of shyness for subjects as measured by self-ratings of positive affect ($F(1, 39) = .193$, p , ns), negative affect ($F(1, 39) = .331$, p , ns), nor degree of endorsed shyness ($F(1, 39) = .890$, p , ns). In addition, no significant interactions were evident for shyness reaction scales measuring worry ($F(1, 39) = .220$, p , ns), conversational passivity ($F(1, 39) = .279$, p , ns), or somatic complaints ($F(1, 39) = .632$, p , ns) (see table 1).

No significant structure by shyness interaction was evident with regard to the subjects self-rating of anxiety as measured by the MAACL ($F(1, 39) = .482$, p , ns) (see table 1).

Confederates' Self-Rating

One significant interaction was apparent in terms of self-ratings of confederates. Those results indicate that the confederates who were coupled with high shy subjects in an unstructured setting perceived a significantly greater degree of negative affect on their part ($F(1, 39) = 4.512$, $p < .040$). No interactions were evident with regard to the confederates self-rating of positive self-affect ($F(1,$

39) = 1.891, p , ns), or degree of shyness ($F(1, 39) = .161$, p , ns). In addition, no interactions were evident with regard to the confederates self-rating of worry ($F(1, 39) = .009$, p , ns), conversational passivity ($F(1, 39) = .158$, p , ns), or somatic complaints ($F(1, 39) = .034$, p , ns) (see table 2).

Confederates' Rating of Subject

There were no significant interactions between the amount of structure and degree of shyness as measured by the confederates ratings of the subjects positive affect ($F(1, 39) = .012$, p , ns), negative affect ($F(1, 39) = 1.337$, p , ns), or the degree of shyness ($F(1, 39) = .854$, p , ns) (see table 3).

Summary

The objective of this chapter was to present the statistical analysis and interpretation of the data set generated by this experiment. As regards H_1 , the provision of structure to subjects involved in the study did not significantly alter their self-ratings on the various measures of shyness, negative affect, positive affect, worry, conversational passivity, or somatic complaints. Similarly, provision of structure did not alter the self-ratings of confederates. However, in the absence of a structured setting, confederates rated subjects as having significantly more negative affect and greater perceived shyness.

With respect to H₂, high shy subjects were significantly different from low shy subjects on virtually all self-ratings with the exception of somatic complaints. In addition, confederates who were coupled with high shy subjects during the interview rated themselves with significantly less positive affect, more negative affect, greater shyness, worry, and somatic complaints (i.e. contagion effect). Finally, confederates ratings of subjects concurred with the subjects own self-rating as high shy subjects were seen by the confederates as having significantly less positive affect, significantly more negative and greater shyness.

Evidence of significant interactions between degree of structure and level of shyness (consistent with H₃) were generally not apparent in this sample. The only circumstance where a significant interaction occurred was the result of confederates coupled with high shy subjects in an unstructured setting rated themselves with significantly greater negative affect.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate whether a relationship existed among structure and ambiguity, and the level of anxiety and perception of positive affect, negative affect, and shyness in high shy and low shy subjects. Shyness has been described as a source of social anxiety that inhibits shy individuals' ability to interact effectively with others (Jones & Russell, 1982) and is experienced as an increase in the subjective level of discomfort in the presence of others (Buss, 1980). Investigators have determined that the discomfort experienced by shy individuals in social interactions is intense enough such that a significant proportion would seek help to reduce the negative consequences associated with social anxiety (Lazarus, 1982; Pilkonis, 1977b).

Shy individuals typically experience social embarrassment (Mosher & White, 1981) and poor self-confidence (Croizer, 1979) associated with social anxiety with subsequent loneliness (Bernikow, 1986), and with depression (Izard, 1986). In addition to experiencing negative affective responses, shy

individuals are more likely to rate themselves negatively than persons low in shyness when in uncomfortable social situations (Smith & Sarason, 1975). As a result shyness generally inhibits social interaction, which may, in turn, impede the development of a support system necessary to feel secure in a new environment and to develop the social skills required for appropriate interpersonal interactions.

The subjective experience of social anxiety has been related to a number of situational factors and events, such as being required to give a speech (Zimbardo, 1977), or to interact with members of the opposite sex (Cheek & Buss, 1981). In contrast, shy individuals report less social anxiety when interacting with their parents, friends, and in one-to-one conversations with members of the same gender (Zimbardo, 1977).

Another situational factor that has been identified with relation to an increase in social anxiety for shy individuals is ambiguity (Buss, 1980; Zimbardo, 1977). They suggest that shy individuals generally feel more anxious when in social situations with limited structure. There has been, however, little empirical investigation of this assumption.

Pilkonis (1977a) specifically addressed the issue of structure vs. ambiguity in the evaluation of anxiety in persons identified as shy. Pilkonis found a

significantly higher level of anxiety in individuals identified as shy in an unstructured setting when compared to a structured setting. While this study demonstrated a significant relationship between the level of anxiety and the degree of structure for shy individuals, the study utilized an evaluative format and paired individuals with opposite gender partners, both of which have been identified as factors that influence the level of social anxiety in shy individuals. The present study was designed to control for some of the factors considered to influence anxiety in shy individuals and to test whether an interaction exists between the level of structure and self-perceptions and perceptions of others in dyadic interactions.

The following hypotheses were formulated and tested in the study:

H₁. There will be a significant relationship between level of structure in the dyadic interaction and each of the dependent variables. Compared to their counterparts, participants in the structured interview will rate themselves less anxious and more positively, will experience fewer negative shyness reactions, and will be rated more positively by their partners. In addition, confederates will rate themselves more positively in a structured setting.

H₂. There will be a significant relationship

between level of shyness and each of the dependent variables. Compared to their high shy counterparts, participants low on shyness will rate themselves as less anxious and more positively, will experience fewer negative shyness reactions, and will be rated more positively by their partners. In addition, confederates coupled with low shy subjects will rate themselves as less anxious and more positively, will experience fewer negative shyness reactions, and will endorse less anxiety.

H₃. There will be a significant interaction between level of structure and degree of shyness regarding their effect on each of the dependent variables. Such that, those individuals high in shyness who are additionally placed in an unstructured setting will rate themselves as more anxious and in less favorable terms, experience more negative shyness reactions, and should therefore be rated less positively by their partners.

Data were collected from 43 subjects, (n = 11 males, 32 females) college students enrolled in undergraduate psychology courses. Subjects who scored one standard deviation above the mean on the Social Retention Scale represented the high shy subjects; (n = 8 males, 13 females) subjects who scored one standard deviation below the mean on the Social Retention Scale represented the low shy subjects (n = 3 males, 19

females). Subjects were then randomly assigned to one of two groups; structured or unstructured. Therefore, 10 subjects were assigned to the high shy, structured setting; 11 subjects were assigned to the high shy, unstructured setting; 11 subjects were assigned to the low shy, structured setting; and 11 subjects were assigned to the low shy, unstructured setting.

Subjects were paired with a confederate of the same gender. The subjects then conducted an interview for eight minutes. Prior to the interview subjects completed the MAACL to evaluate pretreatment level of anxiety. Following the interview subjects completed the PANAS (view of self), the Shyness Reaction Survey and the MAACL. Following the interview confederates completed two PANAS forms (view of self and view of other) and the Shyness Reactions Survey.

Eighteen 2 X 2 ANOVAS were used to analyze the data and test the three hypotheses. Level of shyness and degree of structure were the independent variables. Shyness reactions, positive affect, negative affect and shyness adjectives were the dependent variables. An ANCOVA analysis was used to covary the pre MAACL test scores with the post MAACL test scores.

H₁ was not supported after evaluation of the results of the experiment. Examination of the data indicated that the dependent variables were not significantly related to the degree of structure for

this study. Data analysis failed to indicate a significant main effect between the degree of shyness and level of structure for the level of anxiety, shyness reactions, positive affect, negative affect, or endorsement of shyness adjectives for the subjects. Additionally, there was no significant main effect for level of structure and confederates ratings of positive affect, negative affect, or endorsement of shyness adjectives.

H₂ was supported when evaluation of the data demonstrated a significant main effect for the level of shyness and the subjects and confederates ratings. High shy subjects rated themselves as having a significantly lower degree of positive affect, a higher negative affect, higher degree of shyness, a greater degree of worry, and a greater degree of conversational passivity as compared to their low shy counter parts. When confederates were coupled with high shy subjects they rated themselves as having significantly less positive affect, greater negative affect and greater perceived shyness than confederates coupled with low shy subjects. In addition, confederates coupled with high shy subjects endorsed a significantly greater amount of worry and somatic complaints, as compared to confederates coupled with low shy subjects. Confederates coupled with high shy subjects rated the subject as having significantly greater negative affect

and shyness ratings than confederates coupled with low shy subjects.

H₃ was partially supported. Examination of the data revealed there were no significant interactions between the degree of structure and level of shyness on subjects self-ratings for anxiety, positive affect, negative affect, shyness adjectives, worry, conversational passivity, or somatic complaints. There was a significant interaction between level of shyness and the degree of structure for confederates self-ratings. When coupled with high shy subjects in an unstructured setting confederates perceived a significantly greater degree of negative affect on their part as compared to confederates coupled with all other subjects. No other significant interactions were evident for subjects. No other significant interactions were evident for confederates rating of themselves or subjects.

Conclusions

On the basis of the results of this study, the following conclusions were drawn.

1. While the literature suggests that shy individuals experience more social anxiety in ambiguous social settings than in structured settings the present study failed to confirm this finding. Two possible explanations for these results are presented. First, when subjects were asked to participate in this study

they were not told the nature of the study prior to receiving instructions for conducting the interview. This procedure was followed in order to eliminate the possibility that subjects would become anxious because they knew they would be conducting an interview with a stranger before the experiment began. The consistently elevated pre MAACL scores for high shy subjects when compared to low shy subjects may reflect a pre-existing level of anxiety associated with the ambiguity inherent in this design. Post-test MAACL scores did reflect a slight increase in anxiety for high shy subjects in an unstructured setting, but it must be presumed to have occurred by chance.

Secondly, the degree of structure vs. ambiguity was less than that utilized by Pilkonis in a previous study (1979a). Structure and ambiguity are not exact positions on a scale, but rather they suggest a continuum. Perhaps the levels of structure and ambiguity utilized in this study were insufficiently different to evaluate the role of structure in the elevation of anxiety for high shy subjects.

2. The result of this study was consistent with previous studies that demonstrated high shy subjects had significantly lower positive affect (Izard, 1986), viewed themselves as shy (Zimbardo, 1977), and had greater conversational passivity (Cheek & Buss, 1981) than their high shy counterparts. In all, the high shy

subjects had more negative self-evaluations than low shy subjects, which is consistent with the findings of Clark and Arkowitz (1975).

Confederates also rated subjects as significantly more shy than their low shy counterparts. In addition, when coupled with high shy subjects the confederates perceived themselves as having significantly less positive affect, significantly greater negative affect and a greater amount of shyness than confederates coupled with low shy subjects. Confederates coupled with high shy subjects also perceived themselves as having significantly more worry and somatic complaints than confederates coupled with low shy subjects, although conversational passivity was not affected by level of shyness. These findings may suggest that there is a feedback system in effect, such that a social contagion effect was in operation, whereby the spontaneous imitation of behavior of subjects by confederates may have operated. Such a feedback system is similar to the process of imitation proposed by Bandura (1969). This effect has not been discussed in the literature for the study of shyness, and would require further investigation to elucidate any factors involved.

3. There was no significant interaction between the level of structure and degree of shyness for subjects' self-ratings of positive affect, negative

affect, shyness, worry, conversational passivity or somatic complaints. As in H1, this may be accounted for by the level of ambiguity present in this study's design and/or the minimal difference between the level of structure in the two interview settings.

There was a significant interaction between the level of structure and degree of shyness when confederates rated themselves for negative affect. Confederates rated themselves as having significantly greater negative affect when coupled with a high shy subject in an unstructured setting. This may be accounted for by the contagion effect seen in H2. As high shy subjects experience more discomfort, confederates may have experienced themselves' more negatively.

Another way to interpret this finding is that shy people invariably rate their performance negatively, and may not discern small differences in behavior. It is likely that there was a slight difference between the structured and unstructured interviews. The conversation probably did not flow as smoothly in the unstructured interview. The confederate may have discerned this difference. The difference was experienced as an increased level of discomfort. Rather than attribute the entire negative affect to the subject, confederates may have attributed some of the negative affect to themselves.

Finally, there was no significant interaction between the amount of structure and degree of shyness on confederates ratings of subjects. High shy subjects were generally rated with less positive affect, greater negative affect and greater shyness than low shy subjects regardless of the amount of structure in the interview.

Recommendations

The following recommendations are presented as a result of this study.

1. Because this study was conducted using a college-age population, it is recommended that research be done using other age groups, since the literature indicates shyness affects all ages.

2. Although this research failed to support the hypothesis that there is an interaction between the level of shyness and degree of structure in eliciting social anxiety, further research would provide information as to the intensity of ambiguity or structure necessary to produce an optimum range of difference.

3. While the literature is equivocal in its findings of gender differences in reactions to shyness, further research is recommended to evaluate the role of gender in relation to the interaction of structure to level of shyness.

4. Given the contagion effect, it is recommended that further research be conducted to determine to what degree, if any, this is a factor in the feedback system employed by high shy individuals' self-perceptions.

5. Because this study was conducted using students from a private university, it is recommended that students be evaluated from public university settings that may be more representative of college students.

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APPENDIXES

APPENDIX A
CONSENT FORM

This research is being conducted as part of the requirement for a doctoral degree in counseling psychology.

This research examines the interviewing process. We are interested in what happens during an interview and how people go about forming impressions of others. We would like you to participate in a short interview with another student. The interview will deal with topics of general information about people. You will be assigned either to the role of interviewer or interviewee. After the interview session is over, we will ask you to fill out a brief questionnaire describing your impressions of the session.

Several important guidelines pertain to this research:

1. Your participation in this research is entirely voluntary. You will not be penalized in any way for refusing to participate. If you choose not to participate, we will give you an opportunity to earn your extra credit by working on some other task.
2. Although we would like you to participate for the entire study, you may stop at any time if you so choose. Participation in this study will take approximately 30 minutes.
3. The information we collect in this study will be held in strictest confidence. The American Psychological Association Guideline for Ethical Practices specifically prohibits the misuse of personal information. Confidentiality will be maintained by using the last four digits of your student I.D. number, names will not be included.
4. Our research focuses on how people respond in general. We are not interested in any one individual's responses. Rather, we look at information grouped across people.

If you have any questions about my rights as a research subject you may make them to the:

Office of University Research Services
001 Life Services East
Oklahoma State University
Stillwater, OK (405) 744-9991

If you have any further questions regarding this research you may contact:

Howard Glidden
744-5751

Stephen Briggs, Ph.D.
University of Tulsa
592-6000

Judith Dobson, Ph.D.
Oklahoma State University
744-6036

If you agree to participate in this research freely and voluntarily, please sign your name on the line below.

Signature of Research Participant

Date

APPENDIX B
SOCIAL RETICENCE SCALE

For each of the items below, please mark how characteristic or typical the statement is of you using the following scale:

5 = extremely characteristic
4 = very characteristic
3 = moderately characteristic
2 = slightly characteristic
1 = not at all characteristic

- 1. I frequently have difficulties in meeting people.
- 2. I seldom feel isolated from other people.
- 3. I have a hard time expressing my opinions to others.
- 4. I usually know what to say in a group.
- 5. Many people apparently think I am unfriendly.
- 6. I seldom keep quiet in groups, especially when I have something to say.
- 7. It is difficult for me to make new friends.
- 8. I frequently feel isolated from other people.
- 9. I have difficulty being assertive, even when it is appropriate or I need to be.
- 10. I have few problems in meeting new people.
- 11. Many people think I'm snobbish or bored because I'm not more outgoing.
- 12. It is difficult for me to know what to say in a group.
- 13. I make new friends easily.
- 14. Ordinarily, I communicate effectively.
- 15. I can express my opinions to others effectively.
- 16. I usually keep quite in groups, even when I have something to say.
- 17. Apparently, people think I am friendly.

- 18. I have little difficulty being assertive, especially when it is appropriate or I need to be.
- 19. I have difficulty in communicating effectively.
- 20. Most people think I am outgoing.

APPENDIX C
MULTIPLE AFFECT ADJECTIVE CHECKLIST

- | | A
PA | D
SS | H |
|--|--|---------|--|
| 1 <input type="checkbox"/> active | 45 <input type="checkbox"/> fit | | 89 <input type="checkbox"/> peaceful |
| 2 <input type="checkbox"/> adventurous | 46 <input type="checkbox"/> forlorn | | 90 <input type="checkbox"/> pleased |
| 3 <input type="checkbox"/> affectionate | 47 <input type="checkbox"/> frank | | 91 <input type="checkbox"/> pleasant |
| 4 <input type="checkbox"/> afraid | 48 <input type="checkbox"/> free | | 92 <input type="checkbox"/> polite |
| 5 <input type="checkbox"/> agitated | 49 <input type="checkbox"/> friendly | | 93 <input type="checkbox"/> powerful |
| 6 <input type="checkbox"/> agreeable | 50 <input type="checkbox"/> frightened | | 94 <input type="checkbox"/> quiet |
| 7 <input type="checkbox"/> aggressive | 51 <input type="checkbox"/> furious | | 95 <input type="checkbox"/> reckless |
| 8 <input type="checkbox"/> alive | 52 <input type="checkbox"/> lively | | 96 <input type="checkbox"/> rejected |
| 9 <input type="checkbox"/> alone | 53 <input type="checkbox"/> gentle | | 97 <input type="checkbox"/> rough |
| 10 <input type="checkbox"/> amiable | 54 <input type="checkbox"/> glad | | 98 <input type="checkbox"/> sad |
| 11 <input type="checkbox"/> amused | 55 <input type="checkbox"/> gloomy | | 99 <input type="checkbox"/> safe |
| 12 <input type="checkbox"/> angry | 56 <input type="checkbox"/> good | | 100 <input type="checkbox"/> satisfied |
| 13 <input type="checkbox"/> annoyed | 57 <input type="checkbox"/> good-natured | | 101 <input type="checkbox"/> secure |
| 14 <input type="checkbox"/> awful | 58 <input type="checkbox"/> grim | | 102 <input type="checkbox"/> shaky |
| 15 <input type="checkbox"/> bashful | 59 <input type="checkbox"/> happy | | 103 <input type="checkbox"/> shy |
| 16 <input type="checkbox"/> bitter | 60 <input type="checkbox"/> healthy | | 104 <input type="checkbox"/> soothed |
| 17 <input type="checkbox"/> blue | 61 <input type="checkbox"/> hopeless | | 105 <input type="checkbox"/> steady |
| 18 <input type="checkbox"/> bored | 62 <input type="checkbox"/> hostile | | 106 <input type="checkbox"/> stubborn |
| 19 <input type="checkbox"/> calm | 63 <input type="checkbox"/> impatient | | 107 <input type="checkbox"/> stormy |
| 20 <input type="checkbox"/> cautious | 64 <input type="checkbox"/> incensed | | 108 <input type="checkbox"/> strong |
| 21 <input type="checkbox"/> cheerful | 65 <input type="checkbox"/> indignant | | 109 <input type="checkbox"/> suffering |
| 22 <input type="checkbox"/> clean | 66 <input type="checkbox"/> inspired | | 110 <input type="checkbox"/> sullen |
| 23 <input type="checkbox"/> complaining | 67 <input type="checkbox"/> interested | | 111 <input type="checkbox"/> sunk |
| 24 <input type="checkbox"/> contented | 68 <input type="checkbox"/> irritated | | 112 <input type="checkbox"/> sympathetic |
| 25 <input type="checkbox"/> contrary | 69 <input type="checkbox"/> jealous | | 113 <input type="checkbox"/> tame |
| 26 <input type="checkbox"/> cool | 70 <input type="checkbox"/> joyful | | 114 <input type="checkbox"/> tender |
| 27 <input type="checkbox"/> cooperative | 71 <input type="checkbox"/> kindly | | 115 <input type="checkbox"/> tense |
| 28 <input type="checkbox"/> critical | 72 <input type="checkbox"/> lonely | | 116 <input type="checkbox"/> terrible |
| 29 <input type="checkbox"/> cross | 73 <input type="checkbox"/> lost | | 117 <input type="checkbox"/> terrified |
| 30 <input type="checkbox"/> cruel | 74 <input type="checkbox"/> loving | | 118 <input type="checkbox"/> thoughtful |
| 31 <input type="checkbox"/> daring | 75 <input type="checkbox"/> low | | 119 <input type="checkbox"/> timid |
| 32 <input type="checkbox"/> desperate | 76 <input type="checkbox"/> lucky | | 120 <input type="checkbox"/> tormented |
| 33 <input type="checkbox"/> destroyed | 77 <input type="checkbox"/> mad | | 121 <input type="checkbox"/> understanding |
| 34 <input type="checkbox"/> devoted | 78 <input type="checkbox"/> mean | | 122 <input type="checkbox"/> unhappy |
| 35 <input type="checkbox"/> disagreeable | 79 <input type="checkbox"/> meek | | 123 <input type="checkbox"/> unsociable |
| 36 <input type="checkbox"/> discontented | 80 <input type="checkbox"/> merry | | 124 <input type="checkbox"/> upset |
| 37 <input type="checkbox"/> discouraged | 81 <input type="checkbox"/> mild | | 125 <input type="checkbox"/> vexed |
| 38 <input type="checkbox"/> disgusted | 82 <input type="checkbox"/> miserable | | 126 <input type="checkbox"/> warm |
| 39 <input type="checkbox"/> displeased | 83 <input type="checkbox"/> nervous | | 127 <input type="checkbox"/> whole |
| 40 <input type="checkbox"/> energetic | 84 <input type="checkbox"/> obliging | | 128 <input type="checkbox"/> wild |
| 41 <input type="checkbox"/> enraged | 85 <input type="checkbox"/> offended | | 129 <input type="checkbox"/> willful |
| 42 <input type="checkbox"/> enthusiastic | 86 <input type="checkbox"/> outraged | | 130 <input type="checkbox"/> wilted |
| 43 <input type="checkbox"/> fearful | 87 <input type="checkbox"/> panicky | | 131 <input type="checkbox"/> worrying |
| 44 <input type="checkbox"/> fine | 88 <input type="checkbox"/> patient | | 132 <input type="checkbox"/> young |

APPENDIX D
SUBJECT INSTRUCTIONS & STRUCTURED
INTERVIEW FORM

INSTRUCTIONS FOR STRUCTURED GROUP

You have been assigned the role of interviewer. You will be introduced to another student and given eight minutes to learn something about him or her.

Attached is an interviewing form that you can use to help you structure your time. Use all or part of this form as you choose.

You have a few moments to prepare before the session begins.

INSTRUCTIONS FOR UNSTRUCTURED GROUP

You have been assigned to the role of interviewer.
You will be introduced to another student and given
eight minutes to learn something about him or her.

You have a few moments to prepare before the
session.

INTERVIEW FORM

This form is designed to help you structure the interview session. It provides you with a variety of questions and topics. Questions that appear in parentheses either indicate another way to phrase a particular question, or they suggest a question that you may or may not want to include.

You may want to begin the interview by informing the interviewee that the interview will take about eight minutes and that you will be covering three general topics: demographic information, education and work history, and social activities.

Demographics

What is your name?

How old are you? What year are you in school?

Are you from Tulsa? (Where are you from?)

Where were you born?

(Is that where your parents live?)

How many brothers and sisters do you have? Are you the oldest? The youngest?

Education and Work

How did you choose T.U.?

Have you taken courses anywhere else?

(If freshman or sophomore -- Have you decided on a major?)

(If junior or senior -- What are you majoring in?)

What are you planning to do when you graduate? When do you hope to graduate?

(What classes are you taking this semester?)

Are you going to work this summer? Go to summer school?

Social Activities

Do you live in the dorms? (Do you live on-campus or off-campus?)

Do you like it there?

What do you do for fun? (What do you do besides studying?)

Do you have any hobbies? Do you play any sports?

What is your favorite movie of all time?

What kind of music do you like best?

APPENDIX E
SHYNESS REACTIONS SURVEY

PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

101-102

U·M·I

REACTIONS SURVEY

Please indicate the extent to which each of the actions or feelings listed below describes what you were like during the interview. Use the following response format:

I was like this:

5 = almost constantly
4 = much of the time
3 = half of the time
2 = not much of the time
1 = not at all

- ___ 1. worried the other person would form an inaccurate (and negative) impression of me
- ___ 2. tired
- ___ 3. took an active role in the conversation
- ___ 4. heart was pounding
- ___ 5. thought about the unpleasantness of the situation
- ___ 6. showed nervous habits (such as rubbing arm, putting hand over mouth)
- ___ 7. bored
- ___ 8. spoke softly
- ___ 9. felt tingling sensations
- ___ 10. worried about the kind of impression I was making
- ___ 11. thought about other things (distractions, thing I should have been doing)
- ___ 12. initiated the conversation
- ___ 13. pulse was increased
- ___ 14. felt clumsy or awkward
- ___ 15. used expressive or animated hand gestures
- ___ 16. thought positively about myself
- ___ 17. hands were shaking

- 18. worried the other person would not like me
- 19. daydreamed
- 20. controlled the direction of the conversation
- 21. felt queasy
- 22. worried that my good points would not be evident
- 23. felt very self-conscious (preoccupied with self)
- 24. used expressive or animated facial gestures
- 25. was silent (did not say much)
- 26. had butterflies in stomach
- 27. mouth was dry
- 28. thought negatively about my self (felt inadequate, inferior, stupid, etc)

APPENDIX F
POSITIVE AND NEGATIVE AFFECT SCALE
(View of Self)

Now please use this same list of adjectives to describe what you were like during the session. Use the following response format.

This adjective describes me:

5 = very much
4 = quite a bit
3 = moderately
2 = a little
1 = not at all

- | | |
|---------------------|-------------------|
| ___ 1. enthusiastic | ___ 22. guilty |
| ___ 2. scared | ___ 23. proud |
| ___ 3. outgoing | ___ 24. irritable |
| ___ 4. interested | ___ 25. attentive |
| ___ 5. afraid | ___ 26. hostile |
| ___ 6. reserved | |
| ___ 7. determined | |
| ___ 8. upset | |
| ___ 9. sociable | |
| ___ 10. excited | |
| ___ 11. distressed | |
| ___ 12. shy | |
| ___ 13. inspired | |
| ___ 14. jittery | |
| ___ 15. talkative | |
| ___ 16. alert | |
| ___ 17. nervous | |
| ___ 18. quiet | |
| ___ 19. active | |
| ___ 20. ashamed | |
| ___ 21. strong | |

APPENDIX G
POSITIVE AND NEGATIVE AFFECT SCALE
(View of Other)

Listed below are a number of adjectives that can be used to describe people. Please use these adjectives to describe what your partner was like during the session. Use the following response format.

This adjective describes my partner:

5 = very much
4 = quite a bit
3 = moderately
2 = a little
1 = not at all

- | | |
|---------------------|-------------------|
| ___ 1. enthusiastic | ___ 21. strong |
| ___ 2. scared | ___ 22. guilty |
| ___ 3. outgoing | ___ 23. proud |
| ___ 4. interested | ___ 24. irritable |
| ___ 5. afraid | ___ 25. attentive |
| ___ 6. reserved | ___ 26. hostile |
| ___ 7. determined | |
| ___ 8. upset | |
| ___ 9. sociable | |
| ___ 10. excited | |
| ___ 11. distressed | |
| ___ 12. shy | |
| ___ 13. inspired | |
| ___ 14. jittery | |
| ___ 15. talkative | |
| ___ 16. alert | |
| ___ 17. nervous | |
| ___ 18. quiet | |
| ___ 19. active | |
| ___ 20. ashamed | |

APPENDIX H
DEBRIEFING FORM

The questions you just answered were designed to measure your feelings and perceptions during the interview. We are interested in looking at your answers to see how people respond to various kinds of interview settings.

In particular, the purpose of this research is to examine whether people feel more comfortable during an interview setting that is structured rather than unstructured. Half of the interviewers in the study are assigned randomly to give a structured interview--that is, they are provided with specific questions to ask during the interview. The remaining interviewers are not given any questions and thus their interview sessions are much more unstructured. Our idea or hypothesis is that people will be more comfortable giving a structured rather than an unstructured interview because their role is more clearly prescribed. We believe that ambiguity is a factor that often makes people feel shy or anxious.

This type of research design is called an experiment because it involves the manipulation of a variable. In this case, structure versus no structure was the manipulated variable (the independent variable). We will look to see what impact this manipulation has on the dependent variables--the questions you filled out after the interview. If our hypothesis is correct, people should report feeling more anxious or bothered by the interview when the task is less structured.

Thank you for your participation. We hope you found the experience interesting.

Signature of research participant

Date

VITA

Howard James Glidden

Candidate for the Degree of
Doctor of Philosophy

Thesis: THE RELATIONSHIP OF SHYNESS AND ANXIETY IN
STRUCTURED VS. NONSTRUCTURED DYADIC
INTERACTION

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Professional Societies: American Psychological
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