

The Behavioural Differences
Between Shy and Not-Shy
Males and Females
in a Same-Sex
Interaction

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Running Head: Shy Behaviour

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IN A SAME-SEX
INTERACTION

BY
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Abstract

There has been ongoing controversy in the social anxiety literature concerning the behavioural validity of the self-label of "shyness". In order to pursue the behavioural differences between shys and not-shys, a sample of 63 undergraduates (33 males and 30 females) were observed within a same-sex group interaction. Of these 63 subjects, 23 had self-labelled shy and 40 had self-labelled not-shy in response to the short version of the Stanford Shyness Survey. In order to explore the influence of situational and personal variables upon the expression of shy versus not-shy differences, subjects of both sexes were observed in interaction with two same-sex peers. These same-sex triads composed of one shy and two not-shy subjects were videotaped as subjects performed the three tasks of the experiment. They were required to take turns in a round-robin fashion disclosing a personal problem to a triad member and being understanding of the personal problem presented by another triad member. Finally all subjects in the triads took part in an informal discussion. Ten minutes of each group session were sampled on videotape. The videotapes were later viewed by a trained observer who rated various verbal, nonverbal, and affect measures. Results of the study pointed to significant behavioural differences between shys and not-shys during same-sex interaction. Shys of both sexes were observed to speak significantly less and to engage in less gazing at the faces of the other triad members. There were no significant differences observed in the performance of shys and non-shys on the dependent measures as a function of sex. This failure to replicate Pilkonis (1976) was discussed in terms of the influence of a same-sex versus opposite-sex social context. In addition, it seemed possible that Pilkonis observed a greater number of significant differences between shys and not-shys because he tested each dependent variable in a univariate fashion. His Type I error rate would therefore have been inflated. The self-label of shyness and

its accompanying behaviours did have an impact upon the impressions formed of the shy subjects by the not-shys. Shy people of both sexes were rated as "More Quiet" and "More Private" than were the not-shys. The influence of the shy behaviour pattern on the responses of others was noted. The not-shy subjects revealed a tendency to talk more and to ask more questions when interacting with a shy person than with another not-shy. In addition, the not-shys who had disclosed to the shy triad member did not perform in a significantly different manner on the dependent measures than did the shy subjects. In contrast, the not-shys who had disclosed to a not-shy talked more and gazed more often at the faces of other triad members than did the shys. Finally, some questions were raised concerning the results of Pilkonis (1976) cluster analysis of the rankings subjects assigned to the five aspects of social anxiety. The analysis conducted in attempts to replicate his results failed to produce as clearcut a typology. In future, consideration should be given to variations in the importance assigned to the five aspects by males and females.

The results of survey research have indicated that the experience of social anxiety is common among adolescents and young adults. In one study, Zimbardo, Pilkonis, and Norwood (1974) discovered that 42% of their sample of high school and college students ($N=814$) labelled themselves as shy. In addition, it was noted that of those who had ever considered themselves shy, 86% disliked being shy. Indeed for 63% their shyness assumed problematic proportions.

However, in spite of its widespread incidence, shyness has not received much research attention. Clinicians with interests focused on social anxiety have devised global self-report inventories to tap aspects of the phenomenon (Watson & Freund, 1969). More recently, behaviourally-oriented investigators have focused on the development of treatment techniques for the heterosocially anxious (Arkowitz, Lichtenstein, McGovern & Hines, 1975; Borkovec, Stone, O'Brien, & Kaloupek, 1974; McFall & Marston, 1970). For the most part research has been designed to address such issues as the verbal, nonverbal, and emotional differences between those describing themselves as high in heterosocial anxiety and those describing themselves as low in heterosocial anxiety. The primary purpose of most of these investigations has been the design of techniques for the treatment of low frequency daters (Arkowitz et al., 1975; Bellack, Hersen, & Lamparski, 1979; Borkovec, Stone, O'Brien, & Kaloupek, 1974; Christensen & Arkowitz, 1974; Christensen, Arkowitz, & Anderson, 1974; Clark & Arkowitz, 1975; Curran, 1975; Glasgow & Arkowitz, 1975; Martinson & Zerface, 1970; Melnick, 1975; Rehm & Marston, 1968).

The major controversy in the literature has focussed on whether the failure of a person to emit socially adept behaviour is due to response deficits

or to conditioned anxiety: the individual may either never have learned the appropriate responses or he may have learned to fear certain kinds of social situations because of negative experiences. A number of studies have indicated that only self-report and global measures of skill and anxiety differentiate the high heterosocially anxious/minimal daters from the low heterosocially anxious/frequent daters (Arkowitz et al., 1975; Borkovec, Stone, O'Brien & Kaloupek, 1974; Glasgow & Arkowitz, 1975; Twentyman & McFall, 1975). Some of these authors have concluded that the distinguishing feature of the self-labelled high heterosocially anxious may not be specific social skills but may be tendency to negative self-evaluations (Clark & Arkowitz, 1975; Curran, 1977; Glasgow & Arkowitz, 1975). On the strength of this position, some have advocated systematic desensitization as the treatment of choice for social anxiety (Arkowitz et al., 1975; Christensen, Arkowitz & Anderson, 1975; Glasgow & Arkowitz, 1975; Glass, Gottman, & Schmurak, 1976; Kanter & Goldfried, 1979; Rehm & Marston, 1968). In contrast, other authors have noted a number of behavioural differences between those who were classed as socially anxious and those who were classed as not socially anxious. Lipton and Nelson (1980) noted that low frequency daters (both male and female) performed significantly worse than high frequency daters on general initiation skills and social exposure. Pilkonis (1976) noted several behavioural differences between the self-identified shy and the self-identified not-shy. The shy were distinguished on the basis of amount of time spent talking during interaction, the amount of eye contact as well as several other behavioural indices. Twentyman and McFall (1975) have suggested that non-daters may avoid heterosocial interactions

because they lack the necessary social skills. To explore this hypothesis, they employed a social skills training program for self-identified shy males. The results indicated that the shy males who received social skills training revealed significantly less physiological responsivity to test stimuli and changed more than control subjects on frequency and duration of heterosocial interactions. Given this discrepancy in the literature, it would appear that efforts must be devoted to the discovery of specific behaviours which can be used to differentiate reliably between the socially anxious and the nonsocially anxious. On the surface this may appear to be an easy task. We all probably feel that we can distinguish intuitively between people who are socially adept and those who are inept. Our cultural institutions should then reflect the presence or absence of specific target responses.

It is at this point that complications begin to emerge. The expression of shy behaviour is likely to vary with the situation. Curran (1977) has remarked upon the inadequacies of broad, inexact definitions of social anxiety and advocates the definition of the target "socially anxious" behaviour with references to the specific social context. To make use of a broad working definition such as "a failure to respond appropriately in social situations" does not provide a sufficiently precise criterion for the presence of social anxiety (Pilkonis, 1976). What is considered appropriate social behaviour in one situation may be considered inappropriate in others (Curran, 1977). Interpersonal behaviour is responsive to its context. For example, a recent study indicated that a group of male subjects consistently emitted behaviour which was judged to be more "assertive" when interacting with females than with

males (Eisler, Hersen, Miller & Blanchard, 1975). There are social norms which govern what is considered appropriate social behaviour in different situations. Not only will behaviour be defined differently according to the context in which it is emitted, but individuals with different norms may judge the same interaction differently. Thus Eisler (1976) has noted that assessments of social skills should keep in mind that not only observed behaviours must be judged, but also the interactions of those behaviours with a specific interpersonal context.

The current study made use of the term "shyness" rather than the seemingly more specific "social anxiety". However, the use of this more global-sounding term did not imply a conception of shyness as a stable trait. Indeed, one of the major purposes of the research was to pursue the variations in the expression of "shyness" as a function of numerous environmental and personal variables. Pilkonis (1976) also made use of the term "shyness" but did not conceive of the phenomenon as a global one. He was interested in describing more completely the behaviours that were likely to accompany the self-label of shyness when observed within a specific social context. The current study went on to pursue further the behavioural consequences of the self-label. The view was held that if a person considered himself or herself to be a "shy" person it was likely that he or she would act in a "shy" manner. However, responsivity of this behaviour to the specific social context was not seen as incompatible with the self-label. The behaviours which had led the person to call himself or herself "shy" were likely to vary as a function of situational factors. The self-labelled shy person could behave in a "not-shy" fashion within certain contexts. Shyness is the colloquial term but researchers

must be careful not to fall prey to its global, "trait-like" connotations. For the purposes of the current research the term "shyness" was seen as synonymous with "social anxiety".

It has been postulated that the criterion behaviours targeted in studies involving no overt differences between high and low heterosocially anxious subjects may not have been complex enough (Arkowitz et al., 1975). Arkowitz et al. (1975) recommended future use of definitions of social behaviour that emphasize the reciprocal nature of interaction. Perhaps measures tapping the "reinforcing skills" of anxious and nonanxious individuals will touch on behaviour skill differences between the two groups. It is possible that the criterion behaviours chosen by Pilkonis (1976) revealed differences between the self-labelled shy and the not-shy because they were more complex than such simple measures as total talk time.

Kupke, Hobbs and Cheney (1979) addressed themselves to the issue of the complexity of criterion behaviours. They sought to isolate the important heterosocial behaviours of males by correlating conversational behaviours with a measure of female interpersonal attraction. They noted differences in interpersonal attraction ratings made by females as a function of the personal attention behaviours (i.e. asking questions of or talking about the female) of the males. In a follow-up study of the experimental validity of this specific conversational skill, training in personal attention produced higher ratings of female attraction than did either training in a second conversational behaviour (minimal encourages) or nontreatment (Kupke, Hobbs, and Cheney, 1979). These results conform to the Arkowitz et al. (1975) recommendation that attention be given to differences in ability to emit positive behaviours

(e.g., those expressing understanding or rapport contingent on partner response).

The current study focused on the isolation of specific responses which distinguished the self-labelled socially anxious and the self-labelled not-socially anxious. In contrast with previous research, attention was directed to another facet of the phenomenon of shyness. Instead of focussing on hereto-social anxiety, the study investigated the expression of social anxiety in same-sex interaction. In this way it was possible to examine the influence of a different social context and its different norms upon the expression of behavioural differences between the shy and the not-shy. Would shy males and females perform differently than their not-shy counterparts when interacting with a same-sex peer? Previous research (Pilkonis, 1976) has examined differences in the behavioural expression of shyness in males and females primarily through observation of heterosocial interactions of the shy with an opposite-sex confederate. Pilkonis (1976) did observe the behaviour of shy and not-shy males and females during a brief same-sex interaction. However, he was only able to collect two measures of verbal behaviour (number of initiations of conversation and number of continuations of conversation) during these episodes because they took place in a hallway. In addition, the variation in the settings of his same and opposite-sex interactions hampered his ability to attribute behaviour differences between shys and not-shys of both sexes solely to the demands of the same-sex interaction. He was unable to rule out the influence of the extraneous environmental variable upon the performance of shy and not-shy males and females. The current study pursued further the influence of sex upon the expression of shy/not-shy differences.

The performance of shy and not-shy males and females was examined during same-sex interactions. The setting of these interactions remained constant across the sex condition of the groups so that it was possible to pursue differences in the pattern of shy and not-shy behaviours as a function of sex as well as a function of the demands of the same-sex social context.

Although he used the term "shyness" instead of the apparently more specific "heterosocial anxiety", Pilkonis (1976) noted that the expression of shyness varies as a function of both environmental and personal variables. Indeed, Pilkonis (1976) delineated two types of shy people distinguished on the basis of their rank ordering of the relative importance of five facets of the global phenomenon: (1) those who emphasized performance deficits such as awkward behaviour and failures to respond appropriately; and (2) those who emphasized subjective discomfort encompassing internal arousal and fear of negative evaluation. He labelled these two groups respectively the publicly shy and the privately shy. Pilkonis (1976) then went on to provide evidence of the practical worth of this classification system in subsequent research demonstrating significant behavioural and affective differences between the publicly shy and the privately shy. He hypothesized that situations calling for a focus of the individual's attention upon public responding would serve to accentuate the shy behaviours of the publicly shy. In contrast, such a task would reduce the shy behaviours of the privately shy as a consequence of the distraction of attention from concern over internal arousal. His own research using a speech-giving task produced evidence in support of this hypothesis. The current research initially intended to include a comparison of the responses of publicly and privately shy individuals to the experimental tasks.

Responses of Others to the "Shy" Person

In recent years a momentous change has taken place in the minds of many mental health professionals. The assumption that the unit of diagnosis must be the individual with the presenting problem has begun to be seriously questioned and consideration is gradually being given to the role of significant others in the initiation and maintenance of the disturbed behaviour (Haley, 1972; Lang, 1961). This alteration in our conception was seen to be germane to our consideration of shyness as well. Shyness has most often been referred to as some possession of the person under investigation. In light of the current realization of the role of the social network, it may be informative to begin to consider the influence of others in the development and maintenance of the shy behaviour.

Zimbardo (1977) proposed the following explanation for the onset of shy symptomatology. On the basis of his survey research he noted that parents and teachers reveal tendencies to label their children. Each family member has a specific role to play in familial interactions. These roles vary in terms of their specificity but whatever the role, congruent behaviours are anticipated. Thus, if one child has been given the shy label, behaviour symptomatic of shyness is expected. The child may be rewarded for emitting role-conforming behaviours while incongruent, gregarious behaviours are ignored or described as "out of character". Long-term role expectations may have telling consequences for the social behaviours of the adult, as well as for his self-image. He may begin to describe himself in the terms he has so frequently heard used by others.

The investigation of the self-fulfilling prophecy may be related to

Zimbardo's (1977) description of the shy-labelling process. The self-fulfilling prophecy has been defined as a false definition of a situation which acts to evoke a new behaviour when in turn makes the originally false conception true (Merton, 1948). As early as 1938, Guthrie noted the effects on a person's behaviour of the expectancies of others for that behaviour. A group of male confederates were enlisted to influence the expectancies of those coming into contact with a shy, socially inept girl such that nonshy, socially adept behaviour was anticipated. The expected social adeptness was evoked by the expectancies for it (Guthrie, 1938).

There would seem to be a relationship between the concept of self-fulfilling prophecy and the proposed model of shy-labelling. Peoples' expectancies of shy behaviour from an individual may influence their own behaviour towards that person so that "shy" responses are evoked.

The motivation for this prophecy fulfillment has been linked to research in the area of attribution (Rosenthal & Jacobson, 1968). According to those in attributional research, man is motivated by a desire to understand the causes of observed events. This motivation is assumed to be based upon a need to predict events and to sense the stability and control contingent thereon. During the course of social interaction people engage in decisions with regard to personal versus environmental attributions. The task is to allocate the causes of observed behaviours to a distinctive trait of the actor or to situational demands (Jones & Goethals, 1971). Jones and Nisbett (1971) argue that the observer of an interpersonal event reveals a tendency to attribute the action to a stable, personality trait of the actor. Indeed, the evidence in one series of experiments indicated that the observers placed a dispropor-

tionately small amount of weight upon the contextual determinants of behaviour and the majority of their emphasis upon the dispositions of the actor (Jones & Nisbett, 1967). Numerous investigations of the attributional process have similarly demonstrated this labelling tendency on the part of observers (MacArthur, 1970; Nisbett & Caputo, 1971; Nisbett, Legant & Marecek, 1971). Thus it may follow that people would reveal a tendency to attribute "shy" behaviour to a personality disposition. The individual may not be seen as responding to elements of the current social climate nor to a temporary mood state. Instead the behaviour is interpreted as evidence of a personality trait. He or she is a shy person. The possession of this trait explains current behaviour and predicts future behaviour in similar situations.

This difference in the nature of attributions formed by actors and observers has been explained in terms of the disparities in information available to the two. Jones and Nisbett (1971) noted that the knowledge of his or her past as it influences present behaviour often diverts the actor from making a dispositional attribution. The observer generally lacks access to such precise knowledge of the actor's unique history. Therefore the actor generally is approached as a modal case.

In addition, actors and observers may differ in terms of their processing of available data (Jones & Nisbett, 1971). In the typical interactive sequence both actor and observer are engaged in decision-making processes. In order to determine the most appropriate course of action each must focus upon the behaviour of the other. Such situations have been labelled mutual contingency interactions because each actor observes and is affected by the other (Jones & Gerard, 1967). Each actor focusses his attention upon the

behaviour of the other in order to best choose his own responses. The result of such focussing of attention is the reduction in the ability of each to recognize the influence of environmental variables, including his own behaviour, on the behaviour of the other. "For the other it is not the stimuli impinging upon the actor that are salient, but the behaviour of the actor" (Jones & Nisbett, 1971, p. 86).

These attentional differences may result in causal perception. While perceiving his own behaviour to be responsive to environmental influences, each observer will perceive the behaviour of the actor as the product of stable personality dispositions (Jones & Nisbett, 1971).

Once a trait has been allocated incongruent behaviours will be seen as more consistent with the label than they really are (Jones & Nisbett, 1971). Once labelled, it is difficult for a person to free himself from the label. Observers use various tactics to maintain the impression of dispositional consistency. Indeed, it has been demonstrated that behaviours are significantly more likely to be attributed to facets of a person's true personality when they are consistent with an initial impression. In contrast, when behaviours are inconsistent with an original impression, they are more likely to be attributed to situational or random factors (Hayden & Mischel, 1975).

These research findings were seen to possess potential relevance to the investigation of the consequences of the attribution of the shy label. As was noted in the earlier discussion, once people have made the attribution of shyness, it may be difficult to escape the label. Any not-shy behaviour may be ignored or described as out-of-character. The current analysis attempted to address this issue through observation of the behaviour of not-shy group

members toward the shy person.

Justification of the Experimental Hypothesis

There remains considerable controversy in the literature concerning appropriate behavioural criteria for the presence of social anxiety. The current study pursued this issue further by focussing upon the influence of different environmental and person variables upon shy behaviour patterns. The influence of sex upon the expression of shy and not-shy response differences was examined within the context of same-sex interactions. Would the varying social norms of same-sex interactions result in a pattern of shy/not-shy differences unlike those noted during heterosocial interactions?

The study was also interested in further exploration of Pilkonis's classification system of shyness. The intention was to assign self-labelled shys to "private" and "public" categories using Pilkonis's criteria and then to consider the differences in the responses of these two categories of shy individuals to the experimental context.

Finally, as an initial step towards the investigation of the behaviour of others to the "shy", the study examined the behaviour of the other triad members towards the shy individual. This facet of the investigation was designed to yield information pertinent to Zimbardo's (1977) postulation that shy people continue to behave in a "shy" manner due to the influence of the behaviours of others towards them.

Behaviour of the shy subjects. The shy subjects were expected to reveal a "shy" pattern of nonverbal behaviour. It was hypothesized that they would engage in significantly less gaze behaviour and mutual looking, and more self-manipulation than would the not-shy subjects (Pilkonis, 1976). In addition,

a different pattern of behaviour was anticipated for the shy subjects. They were expected to speak significantly less frequently and to spend less total time talking than were the not-shy (Pilkonis, 1976).

In response to the controversy in the literature concerning the interactional nature of the criterion behaviours selected, the following response was also examined. Kupke, Hobbs, and Cheney (1979) focussed on the conversational skill which they labelled "personal attention" responding. These verbal responses included asking questions of or talking about the other person, e.g., "What did you do this week?". "Sounds like you had a really good time." Such responses were scored primarily on the basis of pronoun reference. They were scored when the subject used the personal pronoun "You" in a question or statement. This category of response was found to be significantly positively related to interpersonal attraction ratings. In the current study the observer rated incidences of these "personal attention" responses on the parts of both shy and not-shy subjects. It was predicted that shy subjects would emit significantly fewer personal attention responses than would the not-shy.

In an earlier investigation, Pilkonis (1976) measured subjects' affect at two points using a seven point scale. Subjects rated their mood on six dimensions, three positive (content, comfortable, relaxed), and three negative (uneasy, worried, subdued). A total positive affect score was computed by summing the three positive ratings and subtracting the total of the three negative ratings. At both points in time, shy subjects reported less pleasant affect than did the not-shy subjects. These differences in the emotional experience of the shy and not-shy during interactions were explored further in the current investigation. It was predicted that the shy subjects would report

significantly more negative affect than would the not-shy at all points in time.

As was noted earlier, one avenue of research in the area of social anxiety has postulated that the heterosocially anxious differ from the non-heterosocially anxious primarily in the nature of the self-evaluations they make. It has been hypothesized that the socially anxious evaluate their own performance more negatively than do other people observing their behaviour. Kanter and Goldfried (1979) explored this self-evaluation model within a treatment framework. They contrasted the efficacy of self-desensitization procedures and rational restructuring training in the treatment of interpersonal anxiety. Results indicated support of the latter technique in the reduction of interpersonal anxiety and the authors concluded that their study had produced support for the contention that unrealistic self-statements mediate various forms of social-evaluative anxiety. Clark and Arkowitz (1975) investigated the self-evaluations made by high and low heterosocially anxious males of their conversations with female confederates. Compared with low anxious males, the high anxious males underestimated the positive aspects of their performance (social skill and favourability of female response), and overestimated the negative aspects (social anxiety).

The current study pursued this issue further through contrasting the performance of the shy and not-shy subjects during the experimental tasks. The content of their verbal output was analysed by the observer who recorded the frequency of negative and positive self-statements. It was hypothesized that the shy subjects would emit significantly more negative self-statements than the not-shy and would emit positive self-statements significantly less

frequently.

Finally, differences were anticipated in the ratings received by the shy and not-shy subjects on the seven interpersonal traits of the Group Assessment of Interpersonal Traits (GAIT). Since no other studies had made use of the GAIT task in the study of social anxiety, no specific hypotheses could be made prior to conducting the research. However, it seemed likely that the shy subjects would be rated as "More Quiet" and "More Private" than would the not-shys.

Differences in the expression of shyness in males and females. In addition to the overall behavioural differences between shys and not-shys, Pilkonis (1976) pointed to significant differences in the expression of shyness as a function of sex. He exposed male and female shys and not-shys to two types of interactions. When they first arrived for the experiment they engaged in a three-minute interaction with a same-sex confederate. The same-sex interactions took place in a hallway outside the experimental room. Once inside the room, the same-sex confederate left and another, opposite-sex confederate entered for a five-minute interaction. During the same-sex interaction measures were taken of two verbal responses (number of attempts at initiating conversation, and number of attempts at continuing conversation). During the opposite-sex interactions, several measures were taken of both verbal and nonverbal behaviour. Pilkonis noted that the behaviour differences between shys and not-shys varied as a function of the sex of the subject and the context of the interaction. The differences between shy and not-shy females was greatest during the same-sex interaction in the hallway. The differences between shy and not-shy males was greatest during the opposite-sex interaction. He explained

this pattern by noting that perhaps female shys found the public nature of the same-sex interaction exceptionally distressing, while perhaps the shy males were most uncomfortable with the demands of an opposite-sex interaction. During this type of interaction, shy males were observed to spend the smallest percentage of time talking, and the smallest percentage of time gazing at the face of the other person or in eye contact with the other person. In contrast, the not-shy males, during the opposite-sex interaction, emitted the greatest percentage of utterances and of gazes. In the current study the influence of a same-sex interaction setting upon the expression of shy/not shy differences in males and females was more clearly investigated because, unlike Pilkonis's study, it was not confounded by other variables such as the public/private nature of the environment.

Behaviour of the not-shy to the shy. It was hypothesized that as the experiment proceeded, the not-shy subjects in the triads would reveal a tendency to respond to the shy subject in their triad in a different manner than they would to each other. This hypothesis was based upon Zimbardo's (1977) speculations about the origins and maintenance of shy behaviour in the responses and expectations of others to the shy.

In order to investigate this topic, triads of male and female subjects were observed in two experimental tasks: a group discussion task and a relatively non-structured post-task discussion period. One member of each triad was shy. The other triad members were not-shy and were not informed that the third member of their group was shy.

It was proposed that over the course of the experiment the not-shy subjects would reveal one or a combination of the following two patterns of behaviour

towards the shy person. They may have directed fewer utterances to the shy person in attempts to ignore him/her; or they may have directed more utterances to that person in attempts to draw him/her out. The informal discussion period made no demands that each triad member be involved. Therefore it was during this interval that the tendency to ignore or to draw out the shy were observed and recorded.

These behaviour patterns were tapped by the observer ratings of the frequency and direction of utterances. The frequency with which the not-shy subjects directed utterances to the shy subjects may have been significantly lower than or greater than the frequency with which they directed utterances to each other.

The ratings received by the not-shy subjects on the seven interpersonal traits of the GAIT were examined. Previous research using the GAIT had not addressed the issue of social anxiety. Therefore concrete predictions could not be made based on earlier findings. However, it was hypothesized that a relationship would be observed between GAIT ratings received by the not-shy subjects and their pattern of responses to the shy. It was predicted that those not-shys who tended to attempt to draw out the shy person would be rated as "More Empathic" and "More Accepting" than would those not-shys who tended to ignore the shy.

Influence of the publicly-privately shy distinction. On the basis of his cluster analysis of the subject ratings of the five aspects of social anxiety, Pilkonis (1976) described two clusters of shy individuals. In one large cluster were those individuals who emphasized performance deficits (both awkward behaviour and failures to respond appropriately) in describing their

shyness. These subjects he labelled the publicly shy. In another large cluster were those who emphasized subjective discomfort (internal arousal and fear of negative evaluation) in describing their shyness. These he labelled the privately shy.

Pilkonis (1976) followed up the public versus private shyness distinction, performing a 2 (Sex) x 2 (Private-Public) unweighted means analysis of variance on a group of 20 shy subjects. Although the number of subjects was small, some interesting patterns did emerge. These results, Pilkonis concluded, suggested the typology was a meaningful one and that it merited further study. Pilkonis (1976) noted significant differences in the performance of publicly and privately shy subjects on speech-related tasks. Publicly shy subjects gave speeches that were less appealing in style, they experienced more speech anxiety, and they were less pleased with their speeches as a consequence. Pilkonis hypothesized that the structure provided by the speech-giving task was effective in facilitating the performance of the privately shy, but had less influence on the behavioural deficits and affect of the publicly shy. He stated that "Focussing outward on public behaviour (the presentation of the speech) distracted privately shy subjects from their self-consciousness and concern with internal events, but it had less impact on publicly shy individuals who focus by choice on the adequacy of their behaviour" (Pilkonis, 1976, p. 92).

In the current study attention was to be given to the possible influence of Pilkonis's public versus private shyness distinction upon the behaviour of subjects in the experiment. It was hypothesized that the experimental tasks would encourage primarily an outward focus of attention and therefore would accentuate the shy behaviours of the publicly shy and reduce those of the

privately shy.

It seemed possible that the two tasks--the GAIT and the informal discussion period--might have differed in terms of the extent to which they required this outward focussing of the subjects' attention on adequate performance of the task. The GAIT may have been somewhat more structured in its task demands. If this was so, during the GAIT the publicly shy subjects were expected to reveal an accentuation of the shy pattern of behaviours. The informal discussion may have permitted a return of the subjects' attention to their own concerns. That being the case, an accentuation of the shy pattern of behaviour was anticipated on the parts of the privately shy subjects during the informal discussion. The shy behaviour pattern was to be tapped all through the verbal, nonverbal, and affect measures previously described.

In order to classify subjects into the public/private typology a cluster analysis was performed on the rankings assigned by the self-labelled shys to the five aspects of social anxiety included in the questionnaire. Due to complications in the results of this analysis, it was impossible to pursue the behavioural implications of the typology further in the current investigation. The results of the current cluster analysis are discussed at length in the "Results" section of this treatise.

Experimental Hypotheses

In summary, the research hypotheses of the study were:

(1) The shy subjects were expected to reveal a tendency towards a "shy" pattern of verbal behaviour. They would emit significantly fewer utterances and would spend a significantly shorter time talking than would the not-shys. In addition, the shy would emit significantly fewer "personal attention" responses

than would the not-shy.

(2) A "shy" pattern of nonverbal behaviour was also anticipated. The shy subjects would engage in less mutual looking and gaze behaviour and more self-manipulative gesturing than would the not-shy.

(3) It was predicted that the shy and not-shy subjects would differ in terms of the kinds of self-statements they would make to the group. The shy were expected to reveal a tendency to make more negative references to themselves than would the not-shy.

(4) The subjects were expected to rate their moods as more negative than would the not-shys.

(5) Finally, shy subjects would receive significantly different GAIT ratings than would the not-shys. Specifically, it was hypothesized that the shy would be rated as "More Quiet" and "More Private" than would the not-shys.

(6) The pattern of shy and not-shy differences described in hypotheses one and two were expected to vary as a function of the sex of the subjects. In general, the shy males were expected to exhibit the most extreme pattern of shy responses--engaging in the least gaze behaviour and eye contact, the shortest percentage of time talking and the greatest number of self-manipulative gestures. The not-shy males were expected to fall at the other extreme with the means of the shy and not-shy females falling in between the two male groups.

(7) The behaviour of the other triad members to the shy person was expected to differ significantly from their treatment of one another. The exact nature of their behaviour could not be predicted prior to conducting the study. However, two potential response patterns were anticipated. The not-shy subjects may have attempted to draw the shy person out or they may have tended to ignore that person. These behaviour patterns were tapped through observer

ratings of frequency and direction of utterances made by subjects during the informal discussion.

(8) A relationship was predicted between the ratings received by the not-shys on the GAIT and their response to the shy person. It seemed possible that not-shy subjects rated as "More Empathic" and "More Accepting" on the GAIT would be more likely to attempt to draw the shy person out.

(9) It was hypothesized that the experimental tasks would encourage primarily an outward focussing of attention and therefore might tend to accentuate the shy pattern of behaviour in the publicly shy.

(10) It seemed likely that the GAIT tasks were more structured and called for a focussing of subject attention on the performance of a public task. That being the case, the GAIT might have elicited an accentuation of the shy pattern of behaviour in the publicly shy as compared to the privately shy.

(11) The informal discussion period might have permitted the return of the subjects' attention to their own concerns. In that case, the privately shy subjects should have revealed an accentuation of the shy pattern of behaviour during the informal discussion. An accentuated pattern of shy behaviour would have entailed a reduced frequency and length of utterances, reduced frequency and average length of gazes and periods of eye contact, and higher rate of self-manipulation.

Method

Subjects

The subjects were 63 undergraduates of the University of Manitoba subject pool. Of these 33 were male and 30 were female. Same-sex triads were used because the present research was concerned with the study of the expression

of shyness in a same-sex interaction.

Over the course of a two-month period prior to the experimental sessions, a short version of the Stanford Shyness Survey (SSS) was administered during the class sessions of several introductory psychology sections. In order not to alert subjects as to the purpose of the upcoming study, the SSS was not administered by the experimenter. The administration of the test was explained as part of the ongoing investigations of the Psychology Department. The survey results were used to distinguish self-labelled shys and non-shys. They also provided additional information about the prevalence of shyness among young adults in a university setting. A copy of SSS is available in Appendix A.

After a sufficient number of potential subjects had been obtained, subjects were recruited by telephone for an ostensibly unrelated study of same-sex group interactions.

The original Stanford Shyness Survey represented an attempt to achieve greater understanding of the incidence and general nature of social anxiety (Zimbardo, Pilkonis & Norwood, 1974). Subjects were asked to describe their shyness by marking suitable points on seven-point scales. Items included in the survey tapped various aspects of the manifestation of shyness.

The abbreviated version of the Stanford Shyness Survey used in the current research was based upon the short form employed by Pilkonis (1976) in an earlier investigation. On the basis of their responses to three pertinent items shy people were defined as those who said they were moderately to extremely shy (points 4 to 7 on a 7 point scale), more or much more shy than their peers, and shy in 50% or more of the social situations they encounter. They not-shys were "not at all" or "only slightly" shy (points 1 and 2), and less or much less

shy than their peers (Pilkonis, 1976). Finally, those describing themselves as shy were required to rank order the importance of the following five aspects of social anxiety: fear of negative evaluation, internal arousal, avoidance of social situations, failures to respond appropriately, and awkward behaviour. Subjects ranked these five aspects from five (most important) to one (least important).

Pilkonis (1976) performed a hierarchical cluster analysis (Johnson, 1967; 1968) on the ranks which individuals assigned to the five aspects of shyness. The product-moment correlations between the rankings of any two individuals provided a measure of similarity between those individuals and the similarity coefficients constituted the data for his analysis. Johnson's "diameter" or "maximum" method was employed, a technique designed to produce maximally compact clusters. One hundred shy respondents provided complete data on the rankings, and those were the subjects included in the analysis. Four clusters were generated capturing 93 out of 100 subjects. Pilkonis reduced these four to two larger clusters, representing his privately shy and publicly shy groups.

In the subject classification phase of the current study, the results of Pilkonis' (1976) cluster analysis were initially used to attempt to generate the two types of shys. Those individuals self-labelled shy, who ranked internal arousal and fear of negative evaluation as five or four (or vice versa) were to be classed as privately shy. Those self-labelled shy individuals who ranked failures to respond appropriately and awkward behaviour as five or four (or vice versa) were to be classed as publicly shy. Consideration of the rankings of the self-labelled shy respondents immediately made clear that the patterns were not distinct enough to permit this simple classification system. Instead

a cluster analysis (BMDP-2V) had to be undertaken on the ranked data provided by the 200 subjects fitting the "shy" definition. The results of this analysis failed to replicate in close detail those of Pilkonis's procedures. The implication of these results will be discussed in greater detail in a later section. One result of the current analysis was the decision not to attempt to pursue the behavioural consequences of the "public/private" categories further. There were no a priori hypotheses dealing with possible behaviour differences between the shy subjects in the clusters derived from the current analysis.

On the basis of their responses to the pertinent items of the short version of the SSS, subjects were classed as shy and not-shy. A total of 395 potential subjects were contacted by phone and of these 33 male and 30 female subjects agreed to and actually took part in the study. These subjects were randomly assigned to same-sex triads, each including one shy subject.

Experimental Tasks

Each group of these subjects was seated in a sound-attenuated room. All group discussions were videotaped for later viewing by a trained observer. The observer was unaware of the identity of the subject in each group who had self-labelled shy.

Immediately upon arriving for the session, all subjects were asked to complete a mood-adjective rating list of six items. Subjects were asked to rate their mood on six dimensions, three positive (content, comfortable, relaxed) and three negative (uneasy, worried, subdued). This rating list was readministered after each of the experimental tasks (Pilkonis, 1976).

Group Assessment of Interpersonal Traits (GAIT). The GAIT is a small-group, structured exercise in which participants engage in five-minute two-person

interactions. Detailed written instructions were given to each participant describing the two roles that the GAIT required them to play. See Appendix B for a copy of these instructions. The subjects were informed that the task is a method for obtaining an approximate picture of the way individuals behave in dyadic interaction. The GAIT begins by asking each of the group members to write down on an index card provided, two clear, direct statements about their interpersonal relationships. Once all triad members had completed this task, they were asked to put on identification tags indicating their names and either "A", "B", or "C".

After a brief introduction, the first "discloser"--"understander" interaction took place. The instruction sheet handed to each subject contained detailed directions on how to perform each of the roles. As the "discloser" the subject was to take a risk and try to share something with the "understander" that he would like to change about himself--e.g., something about his behaviour in a relationship. As the "understander" the subject was directed to sit back and listen carefully--not only to the words but to the feelings of the discloser. He was expected to tell the discloser the important things he heard (give feedback). The instructions informed the understander that his or her goal was to aid the discloser in exploring and expanding on the personal issue he or she presented.

The talking pairs began immediately after all subjects had completed their index cards, read and discussed the instructions, and donned their identification tags. Each discloser-understander pair interacted for five minutes without any interruption from the other group member. The observing triad member made note of his or her impressions of the interactions on the Note-Taking Sheet provided (see Appendix C). He or she was also responsible for informing the

pair when they had thirty seconds left in the five-minute interval. When the pair stopped talking, the observing member reminded the understander to give a thirty-second summary of what both persons did during the interaction. After the half-minute summary, the next talking pair began. To control for order effect, the order in which shy and not-shy subjects disclosed was counter-balanced across triads. Three order types were included: shy person disclosed first, shy person disclosed second, and shy person disclosed third.

After each triad member had had the opportunity to perform both roles, a copy of the Peer Rating Form was distributed to each (see Appendix D). The GAIT asked each triad member to rate the other people on seven rating scales each describing a common trait. The following list represents the seven scales: Toward Quiet--Toward Outgoing; More Empathic--Less Empathic; Less Accepting--More Accepting; More Private--More Open; Toward Firm--Toward Changeable; Toward Planful--Toward Immediate; Toward Feeling Happy--Toward Feeling Down. Each of the seven traits is divided into six levels. For example, the Quiet to Outgoing trait included the following levels: Extremely Quiet, Somewhat Quiet, Slightly Quiet, Slightly Outgoing, Somewhat Outgoing, Extremely Outgoing. The subjects were required to choose one of the six levels for each of the seven traits that came closest to describing the person's manner in the group.

Each subject received an average score on each trait computed by tallying the ratings given to him or her by the other two subjects and dividing by two. To determine the sum score for each subject on each trait, the highest number received by that subject at each of the six level was summed. This sum score was then divided by the number of raters (2). These mean scores were the final scores for the subjects on the traits.

Subsequent to their completion of the GAIT rating form, the subjects all filled out the mood-adjective rating list.

It is important to note that subjects were informed upon their arrival that they were free to leave the experiment at any time throughout the procedure should they experience discomfort.

Informal discussion. Once all subjects in the triads had completed the mood-adjective rating list, the experimenter introduced the second task. For the final ten minutes of the experiment subjects were asked to take part in a free discussion of the preceding GAIT interactions. The experimenter remained in the room with the subjects only long enough to initiate the discussion and then retired to the adjoining room. Prior to conducting the formal research this discussion period was piloted in order to finalize the nature of the task.

Once again subsequent to the discussion the subjects filled out the mood-adjective rating list. A copy of this form is available in Appendix E.

Debriefing. Upon completion of the informal discussion, the experimenter re-entered the subject chamber and debriefing began. The experimenter led the subjects in an exchange of their feelings about the tasks and their performance in the GAIT roles. Care was taken to ensure that the subjects felt free to discuss any concerns they may have had over the experimental experience. No particular distress was reported by any of the subjects over any of the task demands.

Measurement of the Dependent Variables

Observer. All sessions were videotaped so that they could be viewed subsequently by an observer. This person was kept blind as to the identity of the subject in each group who was shy. The groups were run, videotaped, and

then presented to the observer. In total, ten minutes of each triad session were taped. Two minutes of each of the discloser-understander segments were presented (minutes two and four). In addition, two, two-minute segments (minutes three and four and minutes seven and eight) of the ten-minute informal discussion were taped and viewed. Scoring of the videotapes was done with a discrete event recorder (Esterline-Angus). Both the frequency and duration of events was measured through use of an on-off button pressing system. The observer viewed training tapes of the two pilot groups prior to beginning the task in order to become familiar with the scoring criteria.

The rater was trained to score the videotapes for verbal and nonverbal behaviours including: (1) talking (frequency, direction of utterances, total time spent talking); (2) number of personal attention responses; (3) gaze behaviour (number of gazes and length of gazes); (4) mutual looking (number of incidences of eye contact and length of eye contacts); (5) self-manipulative gestures; and (6) number of positive and negative self-statements.

Self-manipulative gestures were defined as touching or rubbing some part of the body with the hands or with an instrument such as a pen. In line with previous research, self-manipulative gestures received additional counts when episodes exceeded 4.8 seconds. So an episode of 4.8 seconds received a count of one; episodes of 4.8 to 9.6 seconds, a count of two; and so on (Pilkonis, 1976).

Gaze behaviour was defined as looking or glancing at the face of another triad member. The number and length of glances were scored for all subjects. Overlapping glances provided the measure of number and length of mutual looking. This behaviour was recorded only during the discloser-understander segments because the observer reported extreme difficulty in keeping track of

the eye contact behaviour of all three subjects simultaneously during the group discussion. No difficulties arose during training so no need to develop further scoring criteria for these nonverbal behaviours was experienced.

The scoring criteria for verbal behaviours were more involved. The observer was trained to score the tapes for the number and length of utterances made by each subject. In an earlier piece of research, Pilkonis (1976) found that observers experienced difficulty making distinctions between pauses and separate utterances when the subject spoke slowly or haltingly. Pilkonis successfully eliminated the problem by stipulating that events separated by less than 1.6 seconds were combined as a single utterance when the recorder tapes were scored. This tactic was used in the current research. However, the time period was reduced to one second during observation of the training tapes. Utterances separated by less than one second were combined as single events when verbal behaviour was scored from the recorder tapes.

In addition to recording the frequency of utterances, the observer made note of the direction of each of the utterances. This measure was taken only during the informal discussion samples. Through collection of this information it was possible to shed light upon the hypothesis dealing with the tendency of other group members either to attempt to draw out the shy person or to ignore that individual.

The observer also rated the videotapes for the number of personal attention responses emitted by each subject. In line with the Kupke, Hobbs and Cheney (1979) research, this category of verbal behaviour included asking questions of or talking about the other triad member. The response was scored when a subject used the personal pronoun "You" in a question or statement. This

category of verbal behaviour was rated for each subject throughout all experimental tasks. To control for the confounding effects of total frequency of verbal behaviour, proportion scores (frequency of personal attention responses/total number of utterances x 100) were calculated and used in the statistical analysis.

Reliability of scoring procedures. In order to ascertain the reliability of the observer's scoring procedures, ten subjects were chosen, one from each of five male and five female groups, to be rated a second time by the experimenter. The product-moment correlation was computed between the values obtained by the observer and the experimenter on each of the dependent measures. These product-moment correlations constituted the reliability coefficients. The scoring was found to be highly reliable, with interrater reliabilities ranging from .99 for the number of self-manipulative gestures to .82 for the number of personal attention responses recorded during the group discussion. The reliability statistics for all dependent variables are available in Table 1.

Subject affect ratings. Subjects' affect was rated at three points. Immediately after all three group members had arrived for the session, each was asked to complete a seven-point mood-adjective rating list composed of three positive and three negative dimensions. This list was readministered after each of the experimental tasks. A total positive affect score was computed by summing the three positive affect ratings and subtracting the sum of the three negative ratings. Pilkonis (1976) using this seven-point scale, demonstrated significant differences in levels of positive affect between shy and not-shy subjects involved in dyadic interactions and in speech-giving tasks. Shy subjects reported less pleasant affect than did not-shys.

Table 1
 Reliability of the Observer
 Ratings of the Dependent
 Variables

Variables	Discloser	Understander	Grp. Discussion
% Gazes	.9282	.9732	.8979
Gaze #	.9019	.9186	.9300
% Eye Contact	.9616	.9611	
# Eye Contacts	.9729	.8518	
# Self-Manip. Gest.	.9614	.9798	.9910
% Utterances	.9838	.9917	.9858
% Pers. Att. Resp.	1.0000	.8619	.8201

GAIT measures. At the conclusion of the GAIT all subjects were asked to rate each other on the seven dimensions of the GAIT. This information allowed investigation of the possible differences in GAIT patterns between shys and not-shys.

Statistical Analysis and Design

For the majority of the subsequent analyses the study involved a 2 (sex) x 3 (shyness) x 3 (task type) design. The two between subject factors were sex with two levels (male and female) and shyness with three levels. The three levels of the shyness factor were labelled: (1) Shy, (2) Not-Shy I, and (3) Not-Shy II. The self-labelled not-shys were distinguished on the basis of the self-label of the group member who was their understander during the GAIT. The Not-Shy I subjects had disclosed to the shy triad member. The Not-Shy II subjects had disclosed to another not-shy person. It seemed likely that the nature of the dyad composition would influence the performance of the not-shy subjects. The within-subject factor was task type with three levels (discloser, understander, and informal discussion). Prior to conducting the research, it had not been decided whether the three tasks would be considered equivalent and would be treated as repeated measurements of the dependent variables, or whether they would be included as levels of another experimental factor. Scanning of the data once collected clearly indicated that the demands of the three tasks led to different response patterns. Therefore the data obtained on subjects during the three were treated as three sets of data.

Results

Survey Results

Prior to conducting the actual experimental manipulations of the investigation, the short version of the Stanford Shyness Survey was administered

to a series of undergraduates in Psychology. In total 1,156 completed, useable questionnaires were obtained (593 from males and 563 from females). Of this sample of students, 42% rated themselves as shy on a "Yes-No" basis and 57.8% rated themselves as "Not-Shy". Of the females, 41.3% rated themselves as shy and 58.7% rated themselves as not-shy. Of the males, 43% labelled themselves as shy and 57% rated themselves as not-shy.

Cluster Analysis Results

Pilkonis's results. Pilkonis (1976) performed a hierarchical cluster analysis (Johnson, 1967, 1968) on the ranks assigned to the five aspects of social anxiety listed in the SSS. Complete data were provided him by 100 subjects and these were the subjects included in the analysis. The product-moment correlation between the rankings of any two individuals provided a measure of similarity between those individuals, and the similarity coefficients were the data for the analysis. He had hypothesized that shy people would vary in terms of their emphasis on private, subjective aspects of shyness (fear of negative evaluation and internal arousal) versus its more public, behavioural aspects (awkward behaviour and failures to respond appropriately).

The results of Pilkonis's analysis indicated that the shy respondents could be broken down initially into four clusters. The n's for each cluster and the mean ratings of each of the five aspects of social anxiety within the clusters are available in Table 2. The first cluster (n=7) consisted of those people who avoided social situations and failed to respond appropriately in them. The second cluster (n=37) was composed of people who emphasized performance deficits (awkward behaviour and failures to respond) in describing their shyness. A third cluster (n=27) rated subjective discomfort (internal

Table 2
Mean Ratings of the
Five Aspects of
Shyness

Cluster Numbers

Analysis Type	P.		O.		M.		F.		P.		O.		M.		F.		P.		O.		P.		O.	
	Avoid & Failures	Subj.	Avoid & Fear	Subj.	Disc.	Subj.	Disc.	Perf.	Def.	Perf.	Def.	Perf.	Def.	Perf.	Def.	Perf.	Def.	Fear & Beh.	Perf.	Def.	Fear	Subj.	Subj.	Disc.
Aspects of Shyness	n=7	n=26	n=60	n=42	n=37	n=39	n=41	n=37	n=22	n=61	n=27	n=66												
	Internal Arousal	2.14	1.808	3.53	3.98	3.30	3.564	2.46	3.73	2.36	2.049	4.30	4.030											
	Fear of Neg. Eval.	1.43	3.692	4.20	4.29	2.16	1.538	2.07	2.35	4.82	3.672	4.07	4.303											
	Avoidance of Soc. Sit.	4.57	4.346	1.87	2.19	1.30	2.179	2.07	1.32	1.55	1.262	1.52	1.879											
	Failures to Respond	4.43	2.654	2.87	2.91	4.03	4.051	4.15	3.70	3.45	3.738	3.26	3.015											
	Awkward Behaviour	2.43	2.500	2.40	1.64	4.22	3.667	4.07	3.70	2.82	4.016	1.85	1.652											

P. = Pilkonis's Results

O. = Overall Current Analysis

M. = Male Results

F. = Female Analysis

arousal and fear of negative evaluation) as most important to their shyness. This cluster Pilkonis labelled the "Privately" shy. Finally, a fourth cluster ($n=22$) ranked fear of negative evaluation and the two behavioural deficit factors as most important to their shyness. Pilkonis chose to combine the third and fourth clusters to form a larger group. He was therefore able to reduce the solution to two primary types: the publicly shy (his cluster two), and the privately shy (his clusters three and four).

Results of the current analysis on the both-sex data. In a follow-up to Pilkonis's analysis a cluster analysis (BMDP-2V) was performed on the ranks which individuals assigned to the five aspects of social anxiety. The method of clustering conducted by this computer program was not identical to that of Pilkonis's (1976) analysis. It was not possible to access a program which would identically replicate his effort. Therefore, instead of using the product-moment correlation between the rankings of pairs of individuals, as had Pilkonis, the current analysis formed clusters on the basis of the sum of the p th power of the absolute difference between the rankings of individuals. Initially each case is considered to be in a cluster of its own. At each step the two clusters with the shortest distance between them are combined and treated as one. This process of combining clusters continues until all cases are in one cluster. This is called the average distance method. Initially the analysis included all 225 subjects (male and female) who provided complete data on the rankings. Four clusters capturing 192 out of 225 subjects were generated. The n 's for each cluster and the mean rankings of each of the five aspects of shyness within the clusters are included in Table 2.

The smallest cluster ($n=26$) was composed of those subjects who rated

avoidance of social situations and fear of negative evaluation as the most important parts of their shyness. A second cluster ($n=39$) was composed of those subjects who emphasized awkward behaviour and failures to respond appropriately and internal arousal in describing their shyness. A third cluster ($n=61$) was composed of subjects who ranked failures to respond appropriately, awkward behaviour, and fear of negative evaluation as most important. These subjects ranked avoidance of social situations and internal arousal as low importance to the description of their shyness. Finally, a fourth cluster ($n=66$) was composed of those subjects who emphasized internal arousal and fear of negative evaluation in describing their shyness.

The pattern of these four clusters can be seen to correspond to those four clusters described by Pilkonis (1976). However, it can be argued that to reduce the four to two on the basis of a private- versus public contrast was not justified by the data. Examination of the cluster ($n=61$) which corresponded most closely to Pilkonis's "performance deficits" cluster revealed that one of the "private" dimensions--fear of negative evaluation--received an average rating only .066 lower than one of the "public" dimensions.

The third cluster described above corresponds to Pilkonis's "Fear and Behaviour Deficits" cluster. Pilkonis chose to combine this cluster with his "Subjective Discomfort" cluster on the basis of similarities in their ranking patterns. However, in contrast to Pilkonis's procedure, merging of this cluster with cluster four of subjects ranking the two private dimensions highest did not seem to be justifiable. Indeed the pattern of average rankings of the five aspects of social anxiety was more similar in clusters two and three than in clusters two and four. Merging of the clusters on the basis of subjective

examination of intracluster rankings did not seem to be sufficient justification in the current analysis.

Therefore the cluster analysis of the combined male and female data did not result in two clusters which could be succinctly differentiated on the basis of varying emphasis given to performance deficits versus subjective discomfort.

Results of the cluster analysis of the female data. Pilkonis also discovered no sex differences in the frequency of membership in specific clusters. Scanning of the cluster membership of the current analysis indicated potential differences in the sex composition of the clusters. As a consequence, the male and female data were subjected to two separate cluster analyses.

The results of the cluster analysis of the female data alone were quite different than those of the combined sample analysis. The \bar{n} 's for each of the clusters and the mean ratings of each of the five aspects of shyness within the clusters are included in Table 2. Two major clusters were revealed accounting for 79 of 101 subjects. The largest female cluster ($\bar{n}=42$) was composed of those subjects who rated internal discomfort and fear of negative evaluation high in importance and avoidance, failures to respond appropriately and awkward behaviour as low in importance. This cluster corresponded more clearly to a "privately" shy category than did any of the clusters in the overall analysis.

The second cluster ($\bar{n}=37$) included subjects who rated internal arousal, failures to respond appropriately, and awkward behaviour as most important to their shyness. This cluster corresponded to the second cluster derived in the both-sex analysis. However, in the female data analysis cluster the subjects ranked all three of these factors equally. Therefore, the female data failed

to yield a cluster corresponding to Pilkonis's "public shyness" category. As was the case in Pilkonis's analysis, there was no cluster of females who ranked avoidance of social situations as highly important to their shyness. This would seem to support Pilkonis's conclusion that avoidance represents a more extreme form of social anxiety, perhaps not common among young adults in a university setting.

In general, however, the results of the cluster analysis conducted on the female data alone did not lend unqualified support for Pilkonis's hypothesized public/private shyness distinction. It would appear to be a much less clear-cut differentiation. The results of the analysis conducted on the both-sex data indicated a tendency for some subjects to rate the subjective discomfort factors as high in importance while rating the other three factors as less important. The female data analysis revealed a similar pattern. However, beyond this point the picture was more complex with a tendency revealed for subjects to rate combinations of the two performance deficit factors and one or the other of the two subjective discomfort factors as highest in importance.

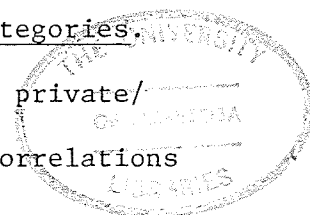
Results of the cluster analysis of the male data. The results of the cluster analysis of the male data corresponded more closely to a public versus private shyness pattern. Two clusters were observed which included 101 of 124 subjects. The n's for each of the clusters and the mean ratings given to the five aspects of social anxiety within each cluster are given in Table 2. A large cluster (n=60) was composed of subjects who rated internal arousal and fear of negative evaluation high in importance in the description of their shyness and the other three dimensions as less important. This cluster was seen to correspond to Pilkonis's subjective discomfort "private" shyness cluster.

The second cluster ($n=41$) was composed of subjects who ranked failures to respond appropriately and awkward behaviour as most important to their shyness. In contrast to the female alone analysis and the both-sex analysis, the male analysis produced a cluster of subjects who did, indeed, rank performance deficits distinctly as most important. Thus the male data most closely corresponded to Pilkonis's public versus private shyness hypothesis. The implications of these cluster analysis results are discussed at greater length in the "Discussion" section of this treatise.

One major consequence of the cluster analyses was the decision not to include the public/private shyness distinction as a factor in the study. A more accurate representation of the data would have had to include three clusters: (1) subjects ranking fear of negative evaluation and internal arousal as most important; (2) subjects ranking internal arousal, awkward behaviour and failures to respond appropriately as most important; and (3) subjects ranking fear of negative evaluation, awkward behaviour, and failures to respond appropriately as most important. In addition, attention would have to be given to possible sex differences in cluster composition. There were no a priori hypotheses concerning performance difficulties between these three clusters of self-labelled shys. Indeed, particularly with regard to the second and third clusters, no specific explanation as to behavioural differences could be put forward. Finally, it was impossible to obtain a sample of subjects from each of the three clusters large enough to permit detection of potential behavioural differences.

Concerns about the rationale of Pilkonis's public/private categories.

In a preliminary investigation undertaken to gain support for his private/public shyness typology, Pilkonis reported significant negative correlations



between the rankings individuals assigned to his two private factors and his two public factors. The results of this analysis can be seen in Table 3. He took this as evidence of the existence of a natural relationship between the two factors within each category. However, he failed to note the negative correlations between the two "private" factors and the two "public" factors. It seemed possible that those intercorrelations between the five aspects of social anxiety may have been artifacts of the process of correlating ranked data. In response to this concern a series of ten correlation analyses were performed on sets of 100 randomly selected ranked numbers ranging from one to five. The results of these analyses are available in Table 4. The correlations derived from these analyses can be seen to correspond to those obtained by Pilkonis in both direction and magnitude. Comparisons made of corresponding pairs of correlations from the two tables indicated that no significant differences between the correlations obtained by Pilkonis on actual subject data and those obtained through the analysis of random sets of ranked numbers. It is likely that Pilkonis's results are the product of spurious correlations between ranked data and may not represent the existence of real negative relationships among the variables. This calls into question the use of the intercorrelations as support of the dichotomy of private and public shyness.

Behaviour Differences Between Shys and Not-Shys (Male and Female)

Summary of expectations. The current study was designed to address several issues. Do self-reports of shyness possess any behavioural validity? If so, what are some of the behavioural differences of shy and not-shy people? Will these differences between shys and not-shys vary as a function of the sex of the individuals observed? Differences had been observed on various performance

Table 3
Correlations Among Aspects of Shyness
Pilkonis's Results

<u>Private</u>		<u>Private</u>	<u>Public</u>		
	Internal Arousal	Fear of Neg. Evaluation	Avoidance	Failures	Awkward
Internal Arousal	---	-.13	-.17	-.40***	-.29**
Fear of Neg. Evaluation		---	-.40**	-.30**	-.34***
<u>Public</u>					
Avoidance			---	-.12	-.26**
Failures to Respond				---	-.08
Awkward Behaviour					---

** $p = .01$

*** $p = .001$

Table 4
Results of Correlational Analysis of
Random Sets of Ranked Numbers

	1	2	3	4	5
1	1.00	-.23527(<u>p</u> =.01)	-.28756(<u>p</u> =.002)	-.29788(<u>p</u> =.001)	-.2462(<u>p</u> =.007)
2		1.00	-.24206(<u>p</u> =.007)	-.29695(<u>p</u> =.001)	-.20708(<u>p</u> =.022)
3			1.00	-.22192(<u>p</u> =.014)	-.24894(<u>p</u> =.006)
4				1.00	-.20278(<u>p</u> =.021)
5					1.00

measures when shys and not-shys were compared during heterosocial interaction. Would these performance differences remain unchanged during a same-sex interaction? Would the specific demands of the tasks being performed influence the expression of differences between shys and not-shys? In order to tap these issues measures were taken of a variety of behaviours--samples of verbal and nonverbal responses, self-reports of affect, and observer and participant ratings of various interpersonal qualities.

Overt behaviour differences. A multivariate analysis of variance was conducted on five dependent variables (percentage of time spent talking, percentage of personal attention responses, percentage of time spent gazing, number of gazes and number of self-manipulative gestures). The two between subject factors were sex, with two levels, and shyness with three levels (shy person disclosing to and being understanding of a not-shy; not-shy person disclosing to a shy person and being understanding of a not-shy--Not-Shy I; and not-shy person disclosing to a not-shy and being understanding of a shy person--Not-Shy II). The within subject factor was task type with three levels (discloser, understander, and informal discussion).

A significant multivariate main effect was detected for the shyness type factor ($F=2.8902$, $p < .0029$). Examination of the univariate tests of the five dependent variables indicated that differences in the performance of the three types of shy subjects was most heavily contributed to by their differences on the percentage of time talking variable ($p < .0001$). The discriminant analysis produced a significant discriminant function ($p < .0028$) which accounted for 97.06% of the between group variation. Those subjects who scored high on this composite variable spent a low percentage of time talking, emitted fewer gazes,

and emitted a lower percentage of personal attention responses. The reverse was true of those subjects who scored low on the discriminant function. The cell means of the levels of the shyness factor on these dependent variables indicated that the shy subjects scored high on the composite. They engaged in fewer gazes and spent a significantly shorter percentage of time talking than did either group of not-shys. See Table 5 for these cell means.

The significant multivariate test of the shyness main effect was explored further through post hoc single degree of freedom tests of specific between group contrasts. Interest lay in the examination of performance differences on the dependent variables between the two not-shy groups and the shy group. The test of the behavioural differences between the not-shy subjects who had disclosed to a shy subject (Not-Shy I) and the shy subjects was not significant ($p < .3958$). However, the contrast between the not-shy subjects who had disclosed to another not-shy (Not-Shy II) and the shy subjects **did achieve** statistical significance ($p < .0004$). The significant behavioural difference was largely represented by differences in percentage of time spent talking ($p < .0001$). However, the univariate test of the number of gazes variable also approached significance ($p < .0640$). The discriminant analysis resulted in a significant discriminant function ($p < .0004$) representing the following composite variable. Subjects scoring high on the function spent a low percentage of time talking and emitted fewer gazes at the other group members. Consideration of the cell means of the Not-Shy II subjects and the shy subjects on these variables indicated that the shy subjects scored high on the composite variables. The shys talked for a significantly shorter percentage of time and gazed less at the faces of the other triad members than did the group of not-

Table 5
Cell Means for Shyness Factor
on: % Utter., % P.A.R., # Gaze

Shyness Level	% Utterance	% Pers. Att. Resp.	# Gazes
Not Shy I	40.22 $\bar{2}$	20.91 $\bar{8}$	13.143
Not Shy II	42.58 $\bar{2}$	19.07 $\bar{8}$	14.143
Shy	27.657	15.75 $\bar{7}$	11.54 $\bar{0}$

shys who disclosed to another not-shy.

A significant difference was also detected in the multivariate test of the sex main effect. This effect was largely represented by the significant differences on the percentage of gazes dependent variable. It was the only dependent variable achieving significance on the univariate F tests ($p < .0131$). Since the percentage gaze and number of gazes variables were so highly inter-correlated the increase in the size of the contribution of the latter when the contribution of the percentage of gazes variable had been partialled out was to be expected. The p value of the number of gazes variable reduced from .5404 to .0239 in the partialled test. Thus the two sexes differed significantly on both percentage of time spent gazing and the number of gazes emitted. The discriminant analysis follow-up to this significant multivariate effect produced a significant discriminant function ($p < .0263$) accounting for 100% of between group variation. Subjects scoring high on this composite variable had a higher percentage of time spent gazing and number of gazes as well as a moderate percentage of personal attention responses. Examination of the cell means of the male and female groups on these dependent variables indicated that the female subjects scored high on the composite. The females spent a greater percentage of time gazing at the faces of other triad members and hence emitted a greater number of gazes than did the males. There was also some tendency for females to emit a greater number of personal attention responses than did the males. See Table 6 for these cell means.

No significant shyness x sex interaction was detected. The differences on the five dependent variables detected across the types of shy and not-shy

Table 6
Cell Means of Sex Factor
on # Gazes, & % Gazes

Sex	# of Gazes	% Gazing
Male	12.616	56.150
Female	13.30	66.438

subjects did not vary as a function of the sex of the subjects. This represented a failure to replicate Pilkonis's (1976) earlier findings of varying patterns of behavioural differences between shy and not-shy subjects as a function of their sex.

A significant main effect was detected for the within subject factor-task type ($p < .0001$). Performance on the five dependent variables varied as a function of the type of task--discloser, understander, and informal discussion. This significant multivariate result was followed up by two single degree of freedom contrasts of the scores of subjects on the dependent variables during the "Discloser" versus "Understander" roles and of "Discloser and Understander" versus "Informal Discussion" scores on these variables. Significant differences were detected on these performance measures during the discloser and understander roles ($p < .0001$). The results of the univariate tests of the five dependent variables indicated that performance differed significantly during these two roles on the percentage of time spent gazing, number of gazes emitted, percentage of time spent talking, and percentage of personal attention responses. The discriminant analysis produced a significant composite variable ($p < .0001$). Subjects scoring high on this variable had a higher percentage of personal attraction responses, a low percentage of time spent talking and a relatively low percentage of gazes. Examination of the cell means of the task type factor levels on these indicated that during the "understander" role subjects talked for a significantly shorter percentage of time, emitted a significantly greater percentage of personal attention responses and engaged in fewer gazes. See Table 7 for these mean values.

The test of the contrast between the performance of subjects during

Table 7
Cell Means: Discloser and
Understander Roles
% Utterances, % P.A.R., # Gazes

Role Type	% Utterances	% P.A.R.	# of Gazes
Understander	25.084	43.705	10.667
Discloser	58.628	.45079	15.000

discloser and understander roles and their performance during the informal discussion was also statistically significant ($p < .0001$). Examination of the univariate tests of the dependent variables indicated that there were differences on both percentage of time spent talking and percentage of personal attention responses in the informal discussion versus the discloser and understander roles. The discriminant analysis produced a significant function ($p < .0001$). To score high on this composite subjects had to emit a low percentage of utterances and of personal attention responses. Examination of the cell means of subjects on the levels of the task type factor indicated that during the informal discussion subjects talked for a significantly shorter percentage of time and emitted significantly fewer personal attention responses than they did during the discloser and understander roles. These cell means are available in Table 8.

The differences in number of personal attention responses was largely due to the high rate of personal attention responding during the performance of the understander role. In addition, the difference detected in percentage of time talking was primarily due to the high percentage of time spent talking during the discloser role.

The interaction of the shyness factor and the task type factor approached significance ($p < .0875$). It has been argued that due to the conservative nature of the multivariate test it may be acceptable to interpret as meaningful a test of an effect which has a p value less than .10 (Hummel & Sligo, 1971). Therefore, the decision was made to proceed to an examination of the univariate tests of the dependent variables. There was a tendency revealed for the difference in the percentage of time spent talking between the "Discloser" and "Understander" roles to vary as a function of the shyness type. In addition the

Table 8
Cell Means of Discloser And
Understander versus Group Discussion

Role	% Utterances	% Personal Attention Responses
Understander & Discloser	41.839	22.04 $\bar{9}$
Informal Discussion	26.73 $\bar{4}$	10.72 $\bar{2}$

univariate test of the percentage of personal attention responses variable was significant ($p < .0011$). There was an indication that the differences between the percentages of personal attention responses uttered in the "Discloser" and "Understander" roles varied as a function of shyness. As can be seen in Figures 1 and 2, the differences in the percentage of utterances emitted between Understander and Discloser roles varied as a function of shyness level such that not-shy subjects who had disclosed to a shy subject (Not-Shy I) tended to talk more during the discloser role and less during the understander role than did the not-shys who had disclosed to another not-shy (Not-Shy II) ($p < .0303$). The difference in the percentage of personal attention responses emitted during the discloser and understander roles also tended to vary as a function of shyness level. The not-shys who had disclosed to a shy person (Not-Shy I) emitted more personal attention responses during their discloser role than did the not-shys who had disclosed to another not-shy (Not-Shy II). However, the not-shys who disclosed to a not-shy and were understanding of a shy emitted more personal attention responses during their understander roles than did the not-shys who were understanding of a not-shy (Not-Shy I). It seemed possible that this test failed to achieve significance due to a lack of sufficient power to detect differences. In response to this concern a post hoc analysis was conducted to determine the power. This analysis indicated that with a sample size of 63, an estimated effect size of .30 (medium), and Type I error rate of .05, there was a 65% chance of rejecting the null. In order to have attained a power of .80, the sample size would have had to be increased to 84.

MANOVA results on eye contact data. A second multivariate analysis of variance was conducted on the two eye contact measures (percentage of time in

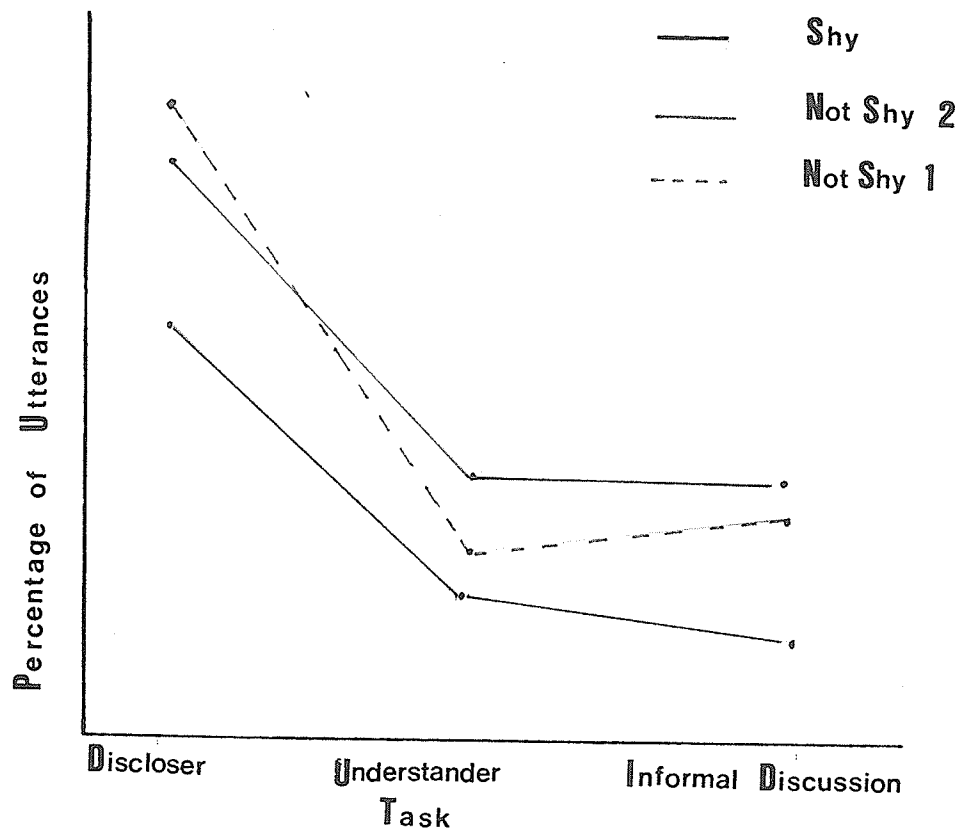


Figure 1 Interaction of Percentage of Utterances emitted during the 3 tasks and Shyness Type

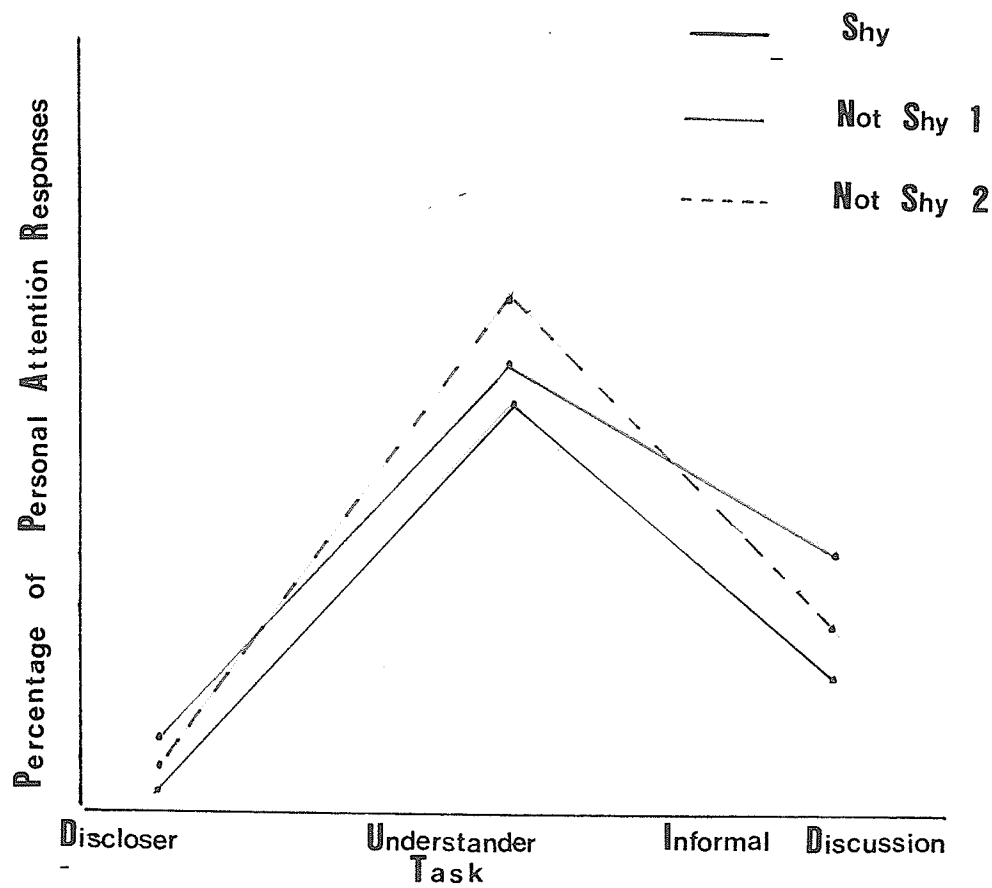


Figure 2 Interaction of Task Type and Shyness Level on Percentage of Personal Attention Responses

eye contact and average length of periods of eye contact). These two dependent measures were analysed separately because the ratings were made of eye contact only during the performance of the discloser and understander roles. The two between subject factors were sex of subject with two levels (male and female) and dyad type with three levels (not-shy disclosing to a shy subject--Not-Shy I, not-shy subject disclosing to a not-shy--Not-Shy II, and shy subject disclosing to a not-shy). The design was described in this manner because each subject in a dyad received the percentage eye contact score derived through averaging the scores given to each independently by the observer. Therefore it was more meaningful to classify subjects according to dyad rather than shyness type. Differences were anticipated as a function of dyad type. It seemed likely that the dyads which involved interaction of a not-shy with another not-shy rather than with a shy subject would exhibit a greater percentage of time in eye contact. In addition, previous research pointed to differences in the percentage of eye contact engaged in by males and females in heterosocial interactions. Would these differences in eye contact as a function of shyness and sex be exhibited during same-sex interactions?

The results of the current analysis pointed to significant differences in eye contact as a function of sex ($p < .0077$). Females interacting in a same-sex dyad exhibited a significantly greater percentage of eye contact than did males in a same-sex dyadic interaction. The discriminant analysis produced a significant discriminant function ($p < .0077$). Subjects who scored high on this composite variable revealed a higher percentage of eye contact. Examination of the cell means of the cell factor on these dependent variables indicated that females scored high on the function--exhibiting a

higher percentage of eye contact with a same-sex partner than did males. No significant differences were observed between males and females on the average length of periods of eye contact. See Table 9 for the male and female means on these variables.

The multivariate test of the dyad type factor was not statistically significant ($p < .6811$). In contrast to Pilkonis's (1976) findings no differences were detected between shys and not-shys on the percentage of eye contact or average length of eye contact variables. Not-shy subjects interacting with a same-sex, not-shy subject did not tend to engage in a significantly greater percentage of eye contact than did not-shys interacting with a shy subject of the same sex. Finally, shy subjects also failed to engage in a significantly different percentage of eye contact than did these two dyad types when interacting in a same-sex dyadic interaction.

The test of the interaction between the sex of the subject and the dyad type factors failed to reach significance ($p < .1702$). Male and female subjects in same-sex dyadic interactions did not reveal significant differences in percentage of eye contact as a function of the composition of the dyad (shy/not-shy, not-shy/shy, not-shy/not-shy).

GAIT Ratings Differences Between Shys and Not-Shys (Male and Female)

Summary. Prior to conducting the study hypotheses were put forward dealing with anticipated differences between shys and not-shys on the ratings they would receive on the seven interpersonal traits of the GAIT. Specifically it was predicted that shy subjects would be rated by both triad members as "More Quiet" and "More Private" than would the not-shys. No a priori predictions were made as to possible rating differences between the two types of not-shys.

Table 9
Cell Means on Sex Factor
on % Eye Contact, Average
Length of Eye Contact

Sex	% Eye Contact	Average Length Eye Contact
Male	27.967	2.391
Female	40.570	2.580

However, any differences in the ratings of these groups were certainly of interest. The issue addressed would be the influence of dyadic interaction with a shy person versus another not-shy person on the GAIT ratings these not-shys would be given.

Results of analysis of GAIT ratings. A significant multivariate main effect for the shyness factor was observed ($p < .0008$). This effect was largely represented by the Toward Quiet-Toward Outgoing, More Private-More Open, and the Toward Feeling Down-Toward Feeling Happy dimensions. The univariate tests of these three variables were highly significant. The discriminant analysis produced a significant function ($p < .0007$) which accounted for 85.37% of the between-group variation. Subjects scoring high on this composite variable would have been rated as more "toward quiet" and more "toward private" while those scoring low on the composite would have been rated as more "toward outgoing" and more "open". Examination of the means of the three shyness types on these GAIT scales indicated that shy subjects were rated by the other triad members as more private and more quiet than were the not-shys. See Table 10 for these cell means. This significant multivariate main effect was followed up by contrasts of each not-shy group with the shy group. While no significant difference on the seven GAIT ratings was detected between the Not-Shy I subjects and the shys ($p < .4692$) a highly significant difference was detected in the pattern of GAIT ratings received by those not-shys who had disclosed to another not-shy ($p < .0001$). The discriminant analysis produced a significant discriminant function ($p < .0001$). Those subjects scoring high on the composite variable would have been rated as more "toward outgoing" and more "open". The examination of the means of the Not-Shy II and the shy subjects on these

Table 10
Cell Means of the Shyness Factor
on Private and Quiet Ratings

Shyness Level	To Quiet	Open-Private
Not-Shy I	4.42 $\bar{9}$	3.619
Not-Shy II	4.90 $\bar{5}$	4.28 $\bar{6}$
Shy	3.40 $\bar{5}$	3.52 $\bar{4}$

variables indicated that the shy subjects were rated as significantly more quiet and more private than were the Not-Shy II's. See Table 10 for these test means.

The multivariate test of the sex main effect was also significant ($p < .0130$). The results of the univariate tests conducted on the seven GAIT ratings indicated that differences on the following scales contributed to the sex main effect: More Empathic-Less Empathic; Less Accepting-More Accepting; and Toward Firm-Toward Changeable. The discriminant analysis produced a significant function ($p < .0129$). To score high on this composite variable subjects had to be rated as low in empathy, quite firm, and not very accepting of the feelings of others. Examination of the means received by males and females on these three GAIT scales indicated that females tended to be rated by same-sex triad members as more empathic, more willing to explore the other's feelings and viewpoints, and more accepting and caring of the other's feelings than were males. See Table 11 for these mean values.

The multivariate test of the interaction of the shyness and sex factors on the GAIT ratings was nonsignificant ($p < .4734$). The differences in the GAIT ratings received by shy and not-shy subjects did not vary significantly as a function of the sex of the subjects.

Self-Ratings of Mood

A 2 x 3 repeated measures analysis of variance was performed on the mood-adjective ratings data. The two between subject factors were sex, with two levels (male and female), and shyness with three levels (shy, Not-Shy I, and Not-Shy II). The subjects provided self-ratings of their moods on six dimensions at three points in time--pre-GAIT, post-GAIT, and post-informal

Table 11
Cell Means of the Sex Factor on the
Empathy and Acceptance Scales

Sex	Empathy	Acceptance
Male	4.16 $\bar{7}$	4.09 $\bar{1}$
Female	4.683	4.533

discussion. From these ratings, three positive mood scores were calculated by subtracting the sum of the ratings of the three negative affect dimensions from the sum of the three positive affect dimensions. These scores constituted the data for analysis.

No significant main effects were detected for either the sex ($p < .4128$) or the shyness ($p < .8494$) factors. There were no significant differences detected in the mood ratings made by males and females. In addition, the mood ratings did not vary as a function of the shyness level of the subjects. However, a significant main effect was detected for the repeated measures variable ($p < .0001$). The ratings subjects made of their moods changed over the course of the experiment. Examination of the mean mood scores of subjects at the three points indicated that as the experiment progressed all subjects rated their mood as more positive.

Behaviour of the Not-Shy Toward the Shy

It was predicted that the not-shy triad members would behave differently to the shy person than they would to one another. To tap this behavioural difference a measure was taken of the percentage of utterances emitted during the group discussion that were received by each of the three types of subjects.

A 2 x 3 analysis of variance was conducted on the dependent variable percentage of utterances received during the informal discussion. The two between subject factors were sex of the subjects (male and female) and shyness type (shy, Not-Shy I, Not-Shy II). Results of the analysis indicated no significant main effect of the sex factor ($p < .445$). There were no differences in the percentage of utterances received as a function of the sex of the triad members.

A significant main effect was detected for the shyness factor ($p < .038$). The subjects in the triads varied in the percentage of utterances they received during the informal discussion as a function of their shyness type. Shy subjects received a significantly smaller percentage of utterances during the discussion than did either not-shy group. This significant overall result was followed up with post-hoc comparisons of each of the not-shy groups with the shy group. The Tukey Honestly Significant Difference technique was used because it provided a satisfactory balance of the two types of experimental error. At a Type I error rate of .05, the test of the difference between the shy and the Not-Shy I groups did not exceed the HSD. However, the test of the comparison of the shy and the Not-Shy II groups did achieve significance. The shy subjects received significantly fewer utterances during the informal discussion than did the Not-Shy II subjects who had earlier disclosed to another not-shy.

Prediction of the Treatment of the Shy

Prior to conducting the research it was predicted that there would be a relationship discovered between the not-shy's tendency to address conversation to the shy person and ratings received on two dimensions of the GAIT--the Empathy scale and the Acceptance scale. It was expected that those not-shys who spoke more frequently to the shy person in the group discussion would be rated as more empathic and more accepting than would those not-shys who tended to ignore the shy person during the informal discussion.

In order to explore this issue, a multiple regression was conducted regressing the ratings of the not-shys on these two GAIT scales on the dependent variable--percentage of utterances directed to the shy person. Results of the

simultaneous solution to this regression problem are available in Table 12. As can be seen in the table, neither variable contributed significantly to the prediction of the percentage of utterances addressed by the not-shy subjects to the shy person during the informal discussion.

Discussion

Survey Results

The SSS results closely replicated those reported by Zimbardo, Pilkonis, and Norwood (1974) and Pilkonis (1976). Approximately 42% of a sample of the undergraduate population of a large university self-labelled shy. However, the results did differ from those of Pilkonis (1976) in one respect. As was the case in the Zimbardo et al. (1974) study, an almost equal percentage of male and female undergraduates self-labelled shy. In contrast, Pilkonis (1976) reported that a higher percentage of males than females reported themselves to be shy (46.4% vs 33.0% for females, $z = 2.23$, $p < .03$). Pilkonis (1976) sample of females may not have been representative of the general population of young adult females. It is possible that women who gain entrance to a selective, private university such as Stanford may tend to be more assertive and socially competent than the norm of undergraduate females. Unlike Stanford, the University of Manitoba is a publicly funded facility with far less stringent entrance criteria. As a consequence, the female undergraduates sampled in the current research may have been more representative of the normative population than were those of Pilkonis's sample. As such, it would seem that approximately equal proportions of young men and women describe themselves as dispositionally shy. The percentages have remained fairly constant since the early 1970's. Although the figures have not increased, this result does point out a need for

Table 12
Results of Simultaneous Solution
of the Regression of
GAIT scales on % Utt. Rec.

Source of Variation	df	R^2 added	SS	MS	F
Empathy	1	.0074	8.5775	8.5775	.02758
Acceptance	1	.0035	42.9425	42.9425	.13812
Residual	39		12128.5690	310.9889	
Total	41	.0036			
Total by Addition		.0109			

the development of more treatment programs for social anxiety. Given the large number of first year university students reporting shyness as a personal problem, it would seem particularly useful for university counselling services to focus increased programming upon this issue.

Cluster Analysis

The results of the current cluster analyses while to some degree resembling those obtained by Pilkonis (1976), failed to provide clear support for his shyness typology. The general impression obtained from consideration of all three sets of results was that he had been too quick to impose his own hypotheses upon the data. Certainly, there would seem to be a tendency for some individuals to rate fear of negative evaluation and internal arousal as most important to their shyness, while rating the other three dimensions as less so. There were also some individuals who rated failures to respond appropriately and awkward behaviour as most important to their shyness. However, there were also substantial numbers of subjects, particularly in the analysis of the both-sex data, who tended to rate combinations from across Pilkonis's two categories as equal in importance. It was unfortunate that it was impossible to gain access to a cluster analysis program which made use of the same similarity coefficient (the product-moment correlation) as did Pilkonis's analysis (1976). Since a different distance measure was used in this analysis the influence of this difference in methodology upon the results obtained cannot be ruled out. It is possible that the cluster differences may have been in part the product of the use of the "absolute difference" rather than the "product-moment correlation" between individuals as the measure of similarity. A follow-up to this analysis would be wise to attempt an identical replication of Pilkonis's

procedures.

In order to follow up the possibility of a typology of shyness it will also be necessary to acknowledge the complexity of the data. The ratings patterns of males and females will have to be considered separately and the influence of extraneous variables upon the patterns will have to be examined. For example, do those shy subjects rating a particular set of factors as more important differ in terms of severity of their shyness from those shys ranking another set of factors as more important? Finally, the five aspects of social anxiety included in future cluster analyses should be refined and perhaps broadened. For example, the subjects may have experienced some difficulty distinguishing between failures to respond appropriately and awkward behaviour. Their possible confusion as to how to distinguish between these two factors may have led them to rank the two similarly thus resulting in an artificial cluster. Perhaps it would be useful to conduct a preliminary survey of self-labelled shys asking them to list various factors which have led them to call themselves shy.

Cluster analysis is only a data reduction technique. It is merely a tool to use in attempts to gain greater understanding of patterns in data. It should not be treated as a more powerful technique.

Behaviour Differences Between Shys and Not-Shys (Male and Female)

The MANOVAs conducted on the following seven dependent variables (percentage of time spent talking, percentage of personal attention responses, percentage of time spent gazing, number of gazes, percentage of time in eye contact, average length of eye contacts, and number of self-manipulative gestures) produced several major findings. The behaviour of shys and not-shys varied

significantly on two of these measures. As did Pilkonis (1976) the current analysis discovered that shy subjects talked significantly less than did not-shys. This was true in interaction with a same-sex peer as it had been during interaction with an opposite-sex peer. Likewise Pilkonis's (1976) observation that shys gazed at the face of another person significantly less frequently than did not-shys was confirmed. Even during interaction with a same-sex peer shys tended to gaze at the face of their talking partner less often than did the not-shys.

These significant behavioural differences between shys and not-shys were detected only in the contrast between the group of self-labelled not-shys who had disclosed to a not-shy (Not-Shy II) and the shys. The contrast between the group of self-labelled shys and the group of not-shys who had disclosed to a shy person (Not-Shy I) did not achieve significance. Perhaps the experience of presenting a personal issue to a shy person was a powerful influence upon subsequent behaviour of those individuals such that they were less conversive. During observation of the dyads it had been noted that dyads of not-shys tended to be more comfortable, with less frequent lapses into silence. This informal observation may provide information to account for the greater percentage of time spent talking and gazing on the parts of the not-shys who had disclosed to another not-shy. These subjects may simply have been more relaxed than were the shys or the not-shys who had disclosed to a shy person. It may also reflect differences in the social skills of the shy subjects. The not-shys who disclosed a personal issue to a shy person received fewer reinforcing gazes and personal attention responses than did the not-shys disclosing to a not-shy. That experience may have influenced their behaviour in further interaction. The discloser task was the more stressful and consequently acting as understander

of the shy triad member did not seem to influence the subsequent behaviour of the Not-Shy IIs in similar ways. This pattern may be evidence of the influence of the socially inept behaviour of shys upon the responses of others.

Shy subjects did not emit significantly more self-manipulative gestures than did either not-shy group. This was in sharp contrast to Pilkonis's (1976) observation of a vastly greater number of self-manipulative gestures on the parts of shys when interacting with opposite-sex confederates.

The current study may have observed a different pattern in shy and non-shy performances on the behavioural measures due to its differing environmental demands. Self-manipulative gestures were seen as behavioural manifestations of anxiety. It is possible that the shys of both sexes found interacting with a person of the same sex less anxiety-provoking than they would have a similar interaction with an opposite-sex peer. This would explain the absence of significant shy/not-shy differences on this behavioural measure of anxiety. Unfortunately Pilkonis (1976) failed to obtain measures of behaviour other than utterances during the same-sex interaction segment of his study. Therefore the current hypothesis dealing with the influence of differences in anxiety levels provoked by same versus opposite-sex interactions could not be confirmed. It will be important to follow up on the differences in the performances of shys and not-shys within same and opposite-sex interactions. The two types of settings do entail different norms of behaviour and these varying behavioural expectations may lead to variations in the amount of anxiety experienced by the shy.

Mood-Adjective Ratings

This hypothesized explanation may gain support from the observed absence

of significant differences between shys and not-shys on their mood ratings. In contrast to Pilkonis's (1976) results, the shy subjects failed to rate their moods as more negative than did either group of not-shy subjects. All subjects rated their mood as becoming significantly more positive as the experiment progressed. The GAIT procedures were seemingly experienced by all subjects as stressful and this may have resulted in an absence of differences between shys and not-shys on the behavioural manifestation of anxiety. The experience of discussing personal issues with a same-sex peer may have evoked similar levels of anxiety in self-labelled shys and not-shys. Once more, the influence of a different social setting upon the expression of shy and not-shy behaviour may have been revealed. Had an opposite-sex interaction condition been included, significant differences in the pattern of shy behaviour may have been detected.

The current research did produce further evidence to support earlier contentions that the search for shy/not shy behaviour differences must attend to differences in their specific reinforcing skills (Arkowitz et al, 1975; Kupke, Hobbs & Cheney, 1979). The shys of this study tended to emit fewer personal attention responses than did the not-shys. They were less likely to ask personal questions about the feelings or activities of their speaking partner than were the not-shys. This social skill would seem to be lacking in the repertoires of the socially inept.

Eye Contact Behaviour

In contrast to Pilkonis's (1976) earlier research findings, no differences were observed between shys and not-shys on the two measures of eye contact. This may be taken as another indication of the influence of the situational norms upon behaviour. Unlike their performance during opposite-sex interactions,

shys and not-shys tended to spend approximately the same percentage of time in eye contact with a same-sex peer. The following pattern seemed to emerge as the videotapes were observed. The subjects tended to glance at the face of the other group member while the other person was looking away and then tended to look down when the person returned the gaze. As can be seen in the significant sex main effect for the eye contact measures, this was particularly the case in the male triads. Female subjects regardless of their shyness label, tended to spend a significantly greater percentage of time gazing and engaged in a significantly greater percentage of eye contact than did males. These sex differences may have been related to the norms of a same-sex interaction. These settings seemed to affect male shys and not-shys alike resulting in less gazing at the faces of other triad members. Perhaps it is not appropriate for males to make eye contact frequently in interaction with other males whom they do not know well. Avoiding eye contact is a way of increasing a feeling of personal distance. It is possible that the experimental task which required subjects to converse on personal issues with same-sex peers was especially unusual for males. This may have led to increased efforts on their parts to instill some sense of distance by avoiding eye contact. Females may be generally more comfortable with same-sex interactions than are males. In addition, the pattern of greater eye contact on the parts of females suggests that females may tend to choose a more passive way to reward their partners in an interaction. Pilkonis (1976) proposed this explanation for his observation that females tend to engage in more eye contact, smiling, and nodding during heterosocial interaction than did males.

It should be noted that Pilkonis tested for between group differences by conducting a series of univariate analyses on each dependent measure in turn.

It has been argued that use of this method is not advisable when the number of dependent variables (p) is large and the proportion of shared variance is quite great (Hummel & Sligal, 1971). It is possible that the univariate testing procedure led to an inflation of experimentwise error rate. Pilkonis (1976) may have noted significant differences between the shys and the not-shys on the dependent measures which were the result of an increased Type I error rate.

In contrast, the current effort controlled for experimentwise error rate by conducting an overall multivariate analysis first and then following up significant multivariate effects with univariate tests of the dependent variables.

The results of the study did indicate that no matter what the interactional setting, shy subjects do act differently than do the not-shys. More importantly, these differences can be observed concretely. The self-label of shyness has specific implications for social behaviour. It would therefore seem wise to continue to develop treatment techniques aimed at teaching specific social skills to the self-labelled shy. The results of the current study indicate that, in same-sex interactions, the shy need to learn to speak up more frequently and to look more often at the face of the person with whom they are conversing and to direct a greater number of personal references to that individual.

The Influence of Task Demands upon Behaviour (Shy versus Not-Shy)

The various tasks of the experiment were experienced differently by the subjects as can be seen in the significant task type main effect. During their performance of the discloser role subjects tended to respond to the situational demands by talking more, gazing at the face of the other subject more, and emitting fewer personal attention responses than they did as understander.

In addition, subjects talked less and emitted fewer personal attention responses

during the informal discussion than they did during either the discloser or understander roles. All subjects, no matter their self-label, tended to respond in like manner to the role demands of the GAIT. However, there was some tendency for shy and not-shy subjects to respond differently to the three experimental tasks. The test of the interaction of the shyness and task-type factors may well have achieved significance at the .05 level had more subjects been studied. Examination of the trends of the three groups of subjects across the three tasks pointed to a possible variation in the pattern of behaviour differences between the roles as a function of the self-label of the subjects in the dyad. As can be seen in Figures 1 and 2, not-shy subjects who disclosed to a shy person (Not-Shy I) and were understanding of a not-shy tended to talk even more as a discloser and less as an understander than did those not-shys who disclosed to a not-shy and were understanding of a shy (Not-Shy II).

The behaviour of the shy person seemed to have an influence upon those with whom he/she interacted. Since the shy person tended to talk less and to ask fewer personal questions of the other person, the person disclosing to that shy person may have had to talk more to fill in the silence. Similarly, the not-shy person being understanding and empathic of a shy person would have had to take the initiative and ask more direct questions of the shy person than he/she would of a not-shy person. The shy person seemed to relinquish control of the interaction to the other person whether that interaction entailed his/her discussion of an area of personal concern or the gathering of information relevant to another's interests.

This is further evidence of a particular behavioural deficit on the part of the shy. Whether they are interacting with a member of the opposite or same

sex, the shy tend to respond passively. The other person is required to initiate conversation. In failing to take greater control of the interaction, the shy person continues to place himself or herself in a more vulnerable and more stressful position. If someone else is left to define the rules of an interaction, it remains for the shy person to try to discover the nature of those rules in order to behave appropriately. Therapy programs for the socially anxious, self-labelled shy, would be wise to devise methods to teach these individuals to structure their own interactions.

The results of this study indicated that the particular norms of the interactional setting and the specific tasks at hand have measurable consequences upon the expression of shy and not-shy differences. Shy people seem to respond differently to a same-sex than they do to an opposite-sex interaction. However, no matter the norms of the interactional setting, shy subjects do act differently than do not-shys. Most important was the confirmation that those differences can be observed and measured. The self-label of shyness has specific behavioural implications.

Difference in GAIT Ratings

In addition to the observed behaviours that accompany the shy label, specific differences were noted in the interpersonal impressions the not-shys formed of the shys and of one another. The shy subjects (both male and female) were seen as more quiet, more private, and less happy than were the not-shys of either sex. Interestingly enough, as was the case with the observed behaviour differences, it was only in the contrast between the ratings of the shy and Not-Shy II subjects that significant differences were observed. This can be seen as further evidence of the influence of the behaviour of the shy upon that of the not-shy with whom he/she interacts. The process of talking to a

shy person about a personal issue may have been uncomfortable for the not-shys. As a consequence they may have been less talkative, less likely to make eye contact with their talking partner than were the not-shys who disclosed to another not-shy. Therefore, they may have been rated as more like the shy subjects than like their not-shy counterparts.

That the shy label is accompanied by tangible behaviour was further confirmed by the 100% accuracy rate with which the observer was able to identify the shy triad member. As was the case in Pilkonis's (1976) research those subjects who called themselves shy were easily detected by the observer as he went through the behavioural rating process.

However, the results of this study do indicate that shyness is not entirely an internal process of negative evaluation of performance. Unfortunately the positive and negative self-statements measures were not included in the analysis because their frequency rate was almost zero. Earlier investigations had emphasized the role of overly critical self-evaluations in the distinction between the socially anxious and nonanxious (Arkowitz et al., 1975). This hypothesized difference in the internal cognitions of the shy and not-shy could not be pursued in the current study.

The shys did exhibit different behaviours than did the not-shys during same-sex interactions. In addition, those behavioural differences had consequences for the interpersonal ratings received by the shys from the other subjects. Shyness is composed of a constellation of tangible interpersonal behaviours and is responsive to the norms of the particular interactional setting. Future investigations would be wise to further explore the implications of the interactional setting upon the expression of shyness. The sex of the

interaction partner was seen to influence the shy/not-shy difference. This area of interest could be more adequately investigated if same-sex and opposite-sex conditions were included in the same study. In addition, the task was observed to influence the behaviour of the shys and not-shys. It would be even more interesting to examine the pattern of shy and not-shy behaviours within interactions closely resembling the natural environment. Perhaps through some deception tactic shy and not-shy males and females could be brought into contact with one another for brief interactions of a nature replicating the norm. Pilkonis (1976) approached such a condition. However, he made use of confederates as interactional partners and failed to maintain environmental consistency across the same and opposite-sex interactions. The current study in making use of the GAIT was able to consider the performance of shy and not-shy subjects in response to its varying behaviour norms. However, it did create an artificial setting. In addition, it would have been beneficial to have included an opposite-sex condition in order to be better able to contrast the influence of those varying norms upon the behaviour of shys and not-shys.

Another of the interests of the current study was the response of the not-shys to the shys. Would the not-shys in interacting with the other subjects tend gradually to ignore the shy and focus attention upon the other not-shy? Or would the opposite tendency be exhibited?

During the informal discussion, when they were more free to choose who they would talk to, not-shys tended to receive more of the conversation than did the shys. This fits with the hypothesis that once not-shys conclude that someone is shy, they tend to anticipate silence from that shy person and as a consequence would tend to ignore the shy. Specifically, the shy persons tended to receive fewer utterances during the informal discussion than did the

not-shys (specifically those not-shys who had disclosed to another not-shy). Once again the Not-Shy I subjects seemed to reveal a pattern similar to the shys. They did not tend to receive more utterances than did the shys. It is possible that it was observation of the behaviour of the Not-Shy I subjects interacting with the shy subjects that resulted in their receipt of no more utterances during the informal discussion than the shys. If the not-shys who disclosed to the shy subjects responded to the discomfort of that situation by exhibiting a "shy" pattern of behaviour, they may then have been treated as were the shys during the subsequent discussion. However, an alternative explanation of this result cannot be entirely ruled out. Investigators of group interactions have indicated that those who speak more also tend to receive more utterances (Bales, 1970). During the group discussion, not-shy subjects spoke more than did the shys. Therefore, they may simply have received more utterances from the other subjects for this reason. However, this does not completely explain the absence of significant differences in percentage of utterances received by the Not-Shy I subjects and shy subjects.

The attempt to predict the not-shys' tendency to ignore the shy person or to attempt to draw him/her out failed. No tendency was noted for the not-shys who directed more utterances to the shy person to receive higher ratings on the Empathy and Acceptance scales of the GAIT.

Thus only an initial step was taken in the exploration of the interactional nature of shy and not-shy behaviour. In order to pursue this avenue of interest in greater depth, actual experimental manipulation would have to be conducted of the shy label. For example, the response of the not-shys to a self-labelled shy person could be contrasted with the responses of not-shys to a self-labelled not-shy who they have been told is shy. In this manner,

the implications of knowledge of the shy label upon not only the behaviour of not-shys but also the behaviour of the labelled individual could be examined.

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Appendix A

The Stanford Shyness Survey--Short Version

100

Rank

_____ my avoidance of social situations wherever possible

_____ my failure to respond when I am in a social situation (e.g., my reluctance to talk up when with others)

_____ my awkward behaviour even when I do make an attempt to respond to others (e.g., clumsy or stiff behaviour in social situations, an inability to be fluent or articulate when I do try to talk)

3) In general, how shy are you?

- | | | |
|---------------|----------------------|--------------|
| 1. Not at all | 2. Slightly | 3. Somewhat |
| 4. Moderately | 5. To a large degree | 6. Very |
| | | 7. Extremely |

Regardless of the general level of your shyness, how much do you vary from one situation to the other in how shy you are?

- | | | |
|---------------|----------------------|--------------|
| 1. Not at all | 2. Slightly | 3. Somewhat |
| 4. Moderately | 5. To a large degree | 6. Very |
| | | 7. Extremely |

Do most other people who know you well consider you to be a shy person?

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

Do acquaintances consider you to be a shy person?

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

Compared to your peers (same age and sex), how shy would you estimate you are?

- | | | |
|------------------|------------------|------------------|
| 1. Much more shy | 2. More shy | 3. About average |
| 4. Less shy | 5. Much less shy | |

In general, how introverted or extroverted are you? An introvert is defined as "one whose thoughts and interests are primarily directed inward". An extrovert is defined as "one primarily interested in others or in the environment."

- | | | |
|----------------------|-----------------------|---------------------|
| 1. Extreme Introvert | 2. Moderate Introvert | 3. Slight Introvert |
|----------------------|-----------------------|---------------------|

4. Neutral 5. Slight Extrovert 6. Moderate Extrovert
7. Extreme Extrovert

If you are a shy person:

a. How much of a problem is your shyness?

1. None at all 2. Slight problem 3. Somewhat of a problem
4. Moderate problem 5. Large problem 6. Very large problem
7. Extreme problem

b. What situation evokes the most shyness in you?

Regardless of whether or not you are a shy person, please rank the following situations in terms of the amount of anxiety they elicit in you, where 7 = the most difficult situation for you and 1 = the least difficult situation for you. When you are done, each item should have a different number (from 1 to 7) next to it. Please read all the items before you rank them.

Rank

_____ small, task-oriented groups (e.g., seminars at school)

_____ small, social groups (e.g., at parties, dances)

_____ one-to-one interactions with a peer of the same sex

_____ one-to-one interactions with a peer of the opposite sex

_____ Situations where you are the focus of attention before a large group
(e.g. when giving a speech)

_____ situation where you are the focus of attention before a small group (e.g.,
when being introduced, when being asked directly for your opinion)

_____ situation when you are being evaluated or compared with others (e.g., when
being interviewed)

Since a further, follow-up questionnaire may be mailed to you, we would

appreciate your giving your name, address and phone number. The confidentiality of your survey results will, of course, be respected. Thank you again for your cooperation.

Name: _____

Address: _____

Phone number at which you may be reached: _____

Appendix B

GAIT Participant Instruction Form

GAIT PROCEDURE: PARTICIPANT INSTRUCTIONS (avoid talking before session)

GAIT (GROUP ASSESSMENT OF INTERPERSONAL TRAITS) is a method for obtaining an appropriate picture of the way individuals are in face-to-face "listening situations". You will be asked to spend five minutes with a member of the group exploring some aspect of yourself that you would like to change. You will also be asked to help someone else explore through your listening, understanding and responding. We call these the "Discloser" and "Understander" roles. After everyone has done both roles, you will be given a questionnaire asking for your impressions on how individuals disclosed and understood during the session. The questionnaire will not ask you to judge right or wrong, good or bad, or who was likeable or not. It is simply aimed at gathering your impressions and observations on the many individual styles of understanding and disclosing. Most people have not practiced ad lib talking in unfamiliar situations and may feel a bit shy before the group. Please be assured that there are no tricks, deceptions or forced confrontations in the procedure. GAIT is not an encounter group, but it is deliberately structured to foster free expression and respect for feelings. The tight structuring also allows everyone to have equal time, prevents people from being left out, and keeps the entire session to about 90 minutes. Here is a summary of the entire procedure followed by detailed instructions.

SUMMARY. 1) WRITE 2 STATEMENTS ON THE INDEX CARD; 2) PUT ON IDENTIFICATION TAGS AND FORM ALPHABETICAL CIRCLE; 3) BRIEF INTRODUCTION GO-AROUND; 4) DO 5-MINUTE "DISCLOSER"-"UNDERSTANDER" PAIRINGS--STARTING WITH A AND C THEN MOVING CLOCKWISE UNTIL EVERYONE PARTICIPATES; 5) CAREFULLY DESCRIBE EVERY PAIR WHILE THEY ARE TALKING--USE NOTE-TAKING SHEET; 6) FILL OUT QUESTIONNAIRES.

STATEMENTS should be brief (1 or 2 sentences), clear (easily understood when read aloud), and direct (undisguised and sincere) descriptions of your own behaviour that could be improved. Don't hand them in. Aim at something you would like to change in the way you are with other people or with another person. Consider things in yourself that could be better in relations with a friend, family, lover, work or school associate, advisor, spouse, stranger, child, parent, the opposite sex, etc. Your statement will only be used to introduce a topic that can be explored for 5 minutes, i.e., it doesn't have to tell a complete story. Do not phrase it as a question. Writing two statements (more or less personal) will allow you to read the most comfortable one at your turn. Chances are that neither will be easy to read in front of a group, but try reading the more personal one because it makes the session more meaningful. In any case, you are urged to avoid impersonal, vague, abstract or joking statements, e.g., focussing mostly on another's behaviour, political matters, or hiding behind humour. It will probably be unfair to your understander if you present impersonal, insincere complex statements not related to your current face-to-face relations. Someone close to the timer should set it after reading these instructions and inform the group when 5 minutes have elapsed. Please take no more than 5 minutes to write your statements after reading this entire instruction booklet. Those finishing early should remain quiet so others can complete their writing without distraction (or go over instructions again). If you at any time find the procedure seriously upsetting you are free to leave.

IDENTIFICATION TAGS are alphabetized as well as named. Please print your name on the tag underneath the letter. Wear your tag high enough for everyone to

see and form an uncrowded circle.

BRIEF INTRODUCTIONS can serve as a warm-up. Simply go round the group alphabetically, and give your names distinctly. Start with person A.

THE TALKING PAIRS begin immediately after the introductions are finished.

Person A should become the first "Discloser" by reading one of his statements aloud in a very slow and clear manner. Person C will serve as the "Understander" to A. They will talk together for 5 minutes without any interruption from the other participant. If you feel an impulse to interrupt a talking pair, please hold back. You will have an opportunity to talk with anyone after the session is finished. Use the attached note-taking sheet for recording impressions that can later be transferred to a questionnaire. The third person in the group will be responsible for timing the 5-minute conversation. A timer will be provided. Please inform the talking pair when they have about thirty seconds left. Just quietly call out the word "thirty" as a signal for them to wind down. When the pair stops talking, the timekeeper will remind the Understander to give a half-minute summary of what both persons did during the discussion (timekeeper gives 30-second signal). After the half-minute summary, the procedure begins again with C as Discloser, B as Understander, and A as timekeeper. The idea is to change roles in a counterclockwise direction. That is, the group should continue around the circle with the Discloser-Understander combinations of C-B, B-A.

HINT FOR UNDERSTANDERS: Your task is to sit back and listen carefully--not only to words, but the feelings that the Discloser is trying to communicate. You are to tell the Discloser the important things you hear (give feedback). The goal is to aid the Discloser in exploring and expanding discussion through (1) telling what you hear, (2) sharing your immediate reactions, (3) responding

in a non-judgemental manner. Five minutes is too short for finding solutions, so avoid telling the Discloser how to change. Please remember that your assignment is only to help the Discloser explore a personal issue. Not to correct it. A good rule is to get in the mood for talking with a friend that you like and respect. Try not to let the need to perform in front of the group get in the way of giving your patience and care to the Discloser. Being a superb Understander within a structured group during a five-minute span is extremely difficult--maybe impossible without years of practice. You will do well if you just move a little in the direction of (a) accepting Discloser's feelings as shown and without judging them as good or bad, (b) "tuning-in" to what Discloser is trying to tell you--hearing Discloser's feelings and personal point of view, (c) telling what you hear without much distraction of Discloser's flow of exploration, (d) perhaps giving your immediate personal reactions when useful or related or non-distracting. Also note that your half-minute summary should focus on mostly what you two did more than on the contents of what you talked about. Just describe how far you were able to get on the qualities listed in the following telegraphic summary of HINTS: DON'T JUDGE THE DISCLOSER--TUNE-IN TO BOTH FEELINGS AND WORDS--GET INTO DISCLOSER'S VIEWPOINT--FEED BACK WHAT YOU HEAR--DON'T DISTRACT DISCLOSER'S EXPLORATION--GIVE PERTINENT PERSONAL REACTIONS.

HINTS FOR DISCLOSERS: Many of you will find this task of disclosing and exploring personal matters unusual. Being genuine is frequently confined to familiar situations. Try taking a risk by dealing sincerely with something about yourself that you would like to change, but avoid things that might cause you extreme upset. One approach is to think of a personal topic that you

could discuss with a close friend, but would not ordinarily discuss in a less private group. In short, take a risk, but avoid a great risk unless you are feeling particularly adventurous and strong right now. OTHER SUGGESTIONS: Give your Understander time to absorb the initial reading of your statement. Wait quietly for him to respond. Because this is a two-person activity, avoid long speeches, if possible. Try to actively explore your statement--if new thoughts or feelings strike you, express them. Get in the mood to make yourself known to your Understander. Remember that the Understander is asked not to solve your issues--so don't demand solutions. Your conversation will probably be similar to many you have had before, with the exception that it will end in 5 minutes, and you probably won't get a sense of completion or produce results. Just explain what you wish without worrying about "getting finished". This exercise is designed for you to start a personal exploration--finishing it might require many hours. Most participants describe their Discloser experience as interesting or mildly useful; expecting more might disappoint you.

Please read Hints for Disclosers and Understanders again after completing statements, and allow others to finish writing without distraction.

Appendix C
Note-Taking Form (GAIT)

Participants' Note-Taking Sheet

(for personal use only. No need to return. Use other side if necessary)

This sheet is organized to help you remember each participant. After the session is over, we will give you a rating form to gather your private impressions. You will not be asked to rate yourself. The rating form will ask you to make checks near descriptions that come closest to describing the way people were during the session. You will never be asked what people said, but rather how they said it. Some descriptions will focus on the way people explore, their manner of giving feedback, their mood, etc. Just make notes on everyone's face-to-face manner of style or mood or characteristic.

Sometimes participants become so fascinated in what is being said that they cannot recall how it was said. Please avoid forgetting by making notes to yourself on the manner, style or mood of those trying to understand or disclose. If possible, separate your liking or disliking a person from your description of his interpersonal style.

MANNER OF DISCLOSING (Style of Exploring)	MANNER OF UNDERSTANDING
A	
B	
C	

Appendix D

GAIT Peer Rating Form--Both Sides

Instructions for Ratings

Each of the seven rating scales below describes a common personal trait, e.g. 1. Quiet to Outgoing, 5. Firm to Changeable, 7. Feeling Happy to Feeling Down. All of the traits are divided into six levels. For example the Quiet to Outgoing trait can be used to describe someone as "extremely" or "quite" or "slightly" Quiet, or "extremely" or "quite" or "slightly" Outgoing. The idea is to choose just one of the six levels that comes closest to describing a person's manner during the group session. First use the detailed descriptions in the larger boxes to help organize your general impressions. Then select one of the six levels and circle the letter of the person you are thinking about. Do the same for everyone in the group (except yourself) on one trait before going on to the next. Key words in the large boxes are underlined to simplify your decisions. Here is the best way to proceed: 1) Do one trait at a time and read large boxes first. 2) Use your notes and memory to see which large box comes closest to describing person "A". 3) After you have selected a large box, look at the two or three levels under it and choose the best fit for person "A". 4) Do the same for persons "B", "C", "D" etc. But do not describe yourself. Please don't worry about making perfect ratings. These scales are intended only to gather your quick impressions.

Glance over your notes and try to remember the quiet or outgoing manner of each person in **BOTH** the Discloser and Understander roles. Rate everyone only once.

TOWARD QUIET			TOWARD OUTGOING		
Appeared either more RESERVED or SHY or MODEST or SPARING OF WORDS			Appeared either more BOLD or TALKATIVE or ACTIVE		
Extremely Quiet	Somewhat Quiet	Slightly Quiet	Slightly Outgoing	Somewhat Outgoing	Extremely Outgoing
C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J

Now try to remember each person in the Understander role. On the next two traits (2. Empathic and 3. Accepting) rate everyone as they were ONLY in the Understander role. Use your notes.

MORE EMPATHIC		MODERATELY EMPATHIC		LESS EMPATHIC	
<p>SE ATTENTION to Discloser's point of view or SENSITIVE FEEDBACK showing that FEELINGS WERE UNDERSTOOD AS PRESENTED by Discloser and feedback RARELY DISTRACTED the flow of Discloser's exploration.</p>		<p>LISTENED CAREFULLY and understood most of Discloser's message or mostly ACCURATE FEEDBACK that was OFTEN INSIDE DISCLOSER'S POINT OF VIEW or OCCASIONAL INTERRUPTIONS or FEW MISUNDERSTANDINGS.</p>		<p>Appeared LESS INTERESTED or had TROUBLE "TUNING-IN" to Discloser's description or TENDED TO INTERRUPT OR CHANGE SUBJECTS or feedback sometimes DIFFERED FROM FEELINGS PRESENTED by Discloser.</p>	
Extremely Empathic	Very Empathic	Quite Empathic	Somewhat Empathic	Slightly Empathic	Un-Empathic
D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J

LESS ACCEPTING		MODERATELY ACCEPTING		MORE ACCEPTING	
<p>Understander CHOSE NOT TO DEMONSTRATE FEELINGS for Discloser or preferred to show Discloser ALTERNATE VIEWS or LOGICAL CAUSES or tried to help by CHALLENGING ACCURACY or completeness of some statements.</p>		<p>Understander showed SOME CARING or allowed Discloser some freedom to move at OWN PACE AND DIRECTION or Understander RARELY CHALLENGED DISCLOSER'S FEELINGS and was SOMEWHAT NON-JUDGMENTAL or created a SAFE ATMOSPHERE.</p>		<p>Understander showed MUCH CARING and real concern or Discloser's FEELINGS VALUED and accepted as is or MOSTLY NON-JUDGMENTAL with PATIENCE FOR DISCLOSER'S MANNER or created a WARM ATMOSPHERE.</p>	
Extremely Accepting	Slightly Accepting	Somewhat Accepting	Quite Accepting	Very Accepting	Extremely Accepting
D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J	A B C D E F G H I J

For the next trait (Private to Open) try to remember each person in the Discloser role.
Rate everyone in ONLY the Discloser role. Use your notes.

4.	MORE PRIVATE Discloser chose to share very FEW PERSONAL FEELINGS or talked mostly of EXTERNAL OR IMPERSONAL THINGS or preferred to keep FOCUS AWAY FROM SELF or frequently spoke of GENERAL IDEAS, OTHER PEOPLE or ABSTRACTIONS .			MODERATELY OPEN Discloser gave SOME PERSONAL FEELINGS or talked about FAIRLY INTIMATE THINGS or focus was MORE ON SELF than others or disclosed SOME DIRECT PRIVATE MATTERS and some general public ideas.			MORE OPEN Discloser chose to reveal DEEPER FEELINGS or took RISKS IN SHARING MORE PERSONAL and intimate matters or focused PRIMARILY ON SELF in SPECIFIC TERMS .										
Mostly Private			Slightly Open			Somewhat Open			Quite Open			Very Open			Extremely Open		
A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J		

From now on, use anything you remember to rate everyone. Use your notes and impressions of everyone in BOTH Understander and Discloser roles.

5.	TOWARD FIRM Appeared to have more STRONG CONVICTIONS or CLEAR CUT IDEAS or showed a SENSE OF CERTAINTY						TOWARD CHANGEABLE More involved in EXPLORING ALTERNATIVES or Willing to ADAPT or INTERESTED IN OTHER VIEWPOINTS										
Extremely Firm			Quite Firm			Slightly Firm			Slightly Changeable			Quite Changeable			Extremely Changeable		
A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J		

6.	TOWARD PLANFUL Showed ACTING SKILLS or able to use STRATEGIES for MAKING GOOD IMPRESSION or improvised an INVENTIVE SELF-PRESENTATION or capacity for FACE TO FACE MANEUVERING						TOWARD IMMEDIATE Spoke from IMMEDIATE FEELINGS or appeared to be WITHOUT DIPLOMATIC INTENTIONS or presented self in a LESS THOUGHT-OUT MANNER										
Extremely Planful			Quite Planful			Slightly Planful			Slightly Immediate			Quite Immediate			Extremely Immediate		
A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J		

7.	TOWARD FEELING HAPPY Seems more in a SUNNY MOOD or FEELING UP or OPTIMISTIC or CAREFREE						TOWARD FEELING DOWN Seems more in a BLUE MOOD or FEELING UNHAPPY or DISCOURAGED or WORRIED or PREOCCUPIED										
Extremely Happy			Quite Happy			Slightly Happy			Slightly Down			Quite Down			Extremely Down		
A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J			A B C D E F G H I J		

Please go back quickly over your ratings and make sure that you have circled everyone's letter once and only once for each of the seven traits. If you have not already done so, please put your name and letter and the date and time of this session where indicated on the other side.
Thank you.

Appendix E

Mood-Adjective Rating List

MOOD-ADJECTIVE RATING LIST

Please rate how you feel right now by circling the number that best describes your mood. For example, if you are feeling extremely comfortable, you would circle the number 7 under the "comfortable" item.

Use the following rating scale for each item:

- 1 - Not at all
- 2 - Slightly
- 3 - Somewhat
- 4 - Moderately
- 5 - To a large extent
- 6 - Very
- 7 - Extremely

CONTENT

1	2	3	4	5	6	7
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COMFORTABLE

1	2	3	4	5	6	7
---	---	---	---	---	---	---

RELAXED

1	2	3	4	5	6	7
---	---	---	---	---	---	---

WORRIED

1	2	3	4	5	6	7
---	---	---	---	---	---	---

UNEASY

1	2	3	4	5	6	7
---	---	---	---	---	---	---

SUBDUED

1	2	3	4	5	6	7
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