THE ASSESSMENT OF SOCIAL SKILL
OF SCHIZOPHRENICS IN REMISSION

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A thesis submitted in accordance with the requirements of the University of Surrey for the Degree of Doctor of Philosophy

September 1985

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SUMMARY

This study is concerned with the assessment of social skill in a remitted schizophrenic sample. It is conducted from the perspective of the social skills model proposed by Argyle & Kendon (1967) expanded in this study. Social impairment can be seen, according to this model, as the result of a breakdown at any part of the social skills cycle. Other workers have conceptualized social skill deficits as the result of anxiety, a limited behavioural repertoire, or faulty cognitive functioning. The advantage of the social skills model is that it provides an explanation of the process of normal social behaviour rather than an explanation solely of impairment (Chapter 1).

Severe social impairment may precede, accompany or follow schizophrenic episodes. Much of the theoretical and empirical work on schizophrenia is relevant to the study of the social behaviour of the schizophrenic although few studies have been directly concerned with social skill. Examination of the literature shows that schizophrenics may experience difficulty at every stage of the social skills cycle as a result of factors either associated with the pathology of the disorder, or to the social environment of the schizophrenic (Chapter 2).

Social skills assessment has mainly been concerned with assessment of the behavioural response although some procedures have been devised to assess the cognitive aspects of social skill suggested by the social skills model (Chapter 3).

This study draws on, and develops tests devised by other researchers in the field and also includes procedures designed specifically for this study. It employs a cross-sectional design to test the hypotheses that there will be differences between schizophrenics and non-schizophrenics in their verbal and non-verbal behaviour, self-cognitions, goals, perception and general social functioning. The subjects were 23 male remitted schizophrenics matched with non-psychiatric controls (Chapter 4).

It was found that schizophrenics had very similar goals to the controls, their self-cognitions were extremely negative (although reasonably accurate) and they had difficulty with more complex aspects of social
perception. Their patterns of behavioural response were similar to non-schizophrenics although they talked less, made fewer gestures and looked less at their interpersonal partners. They showed little evidence of lack of responsiveness in conversation, although they were generally poor at conversation handovers (Chapters 5 and 6).

This study increases our knowledge of the social behaviour of schizophrenics in remission and provides potentially useful information for the design of treatment programmes for this clinical population.
Acknowledgements

I would like to thank first and foremost those who took part in this study and so willingly gave their time. My thanks also go to those working in the N.H.S. - psychiatrists, psychologists and psychiatric nurses who helped with the selection of subjects and the development and rating of the assessment procedures, namely: Miss Andrea Edeleanu, Dr. Dorothy Hassell, Mrs Susan Howard, Dr. Noel Lavin, Mrs Julie Sharpe and Mr. Maurice Sharpe. I appreciate the help and support given by my supervisors Dr. Margaret Norris and Professor Asher Tropp and by other members of the Sociology Department, particularly Mr. Keith Macdonald and Mr. Michael Proctor. Finally I wish to thank Mrs Anne Case for her work in typing this thesis so patiently and meticulously.
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INTRODUCTION

Social skills training is currently used widely in the National Health Service in the psychological treatment of people with a variety of disorders including schizophrenia. Much case-study material concerning the poor social functioning of schizophrenics has been published but there are very few studies which are directly concerned with the specific social skill deficits of this clinical population. Such information is necessary, indeed essential in order to provide guidelines for the design of social skills training programmes for schizophrenics.

This research is concerned with the assessment of social skill in schizophrenics in remission and is conducted from the perspective of the social skills model proposed by Argyle & Kendon (1967) and expanded in this study (See Section 1.6). The hypotheses to be tested can be found in Section 2.4. (p.68)

Argyle & Kendon's original model, based on the analogy of serial motor skill and developed for the analysis of sensory motor skills, envisages the individual 'carrying out a series of actions that are related to the consequences that he has in mind to bring about' in which behaviour is 'directed, adaptive, and far from automatic, though it may be seen to be built of elements that are automatized' (p. 56). This process is seen in terms of a cycle consisting of goals, perceptions, translations (of perceptions into actions), motor responses (verbal & non-verbal) and observation of feedback. It is suggested in this study that the social skill cycle starts a stage earlier in that the individual arrives in the situation in which the interaction takes place with a 'cognitive schema' (relating to self, others and the situation itself) and a degree of 'social knowledge' (of norms & rules and also of the meaning of various response cues) which will influence not only his subsequent actions, but his goal and his perception of the immediate situation. In this model, these cognitive elements, although present before the interaction occurs, are not seen as temporally sequential, but will impinge on all stages of the cycle.

It has been suggested that cognitive deficits are a central feature of schizophrenia and schizophrenics have been shown to evidence disturbances of perception, information processing and the use of language. Furthermore, their motor behaviour may be distorted by the underlying pathology of the illness itself and the side-effects of the medication used in treatment.

The (expanded) social skills model, which emphasises the cognitive aspects of social behaviour and suggests a way of analysing the behavioural aspects in terms of verbal and non-verbal behaviour is therefore particularly relevant to the analysis of social behaviour of schizophrenics.

The study employs a cross-sectional design in which information collected from a sample of male schizophrenics is compared with that from a matched sample of normals. Comparisons are also made between schizophrenics and their relatives. The specific assessment instruments used include behavioural role-play tests, questionnaires concerned with self-cognitions and general social-functioning, a test of social perception and a semi-structured interview. The sample for this study is drawn from three
districts of the NHS and consists of all the male out-patient schizophrenics fulfilling the age and diagnostic criteria for this study, (with the exception of two potential subjects who refused). The researcher is well aware that this sample may not be representative of a population of schizophrenics and that it is a smaller sample than might be considered ideal. As such, results of the statistical analysis, which is based on underlying assumptions about the sample, should be interpreted with caution.

An alternative approach to the study of social behaviour can be found in role theory in sociology, rather than social psychology. Sociologists of various theoretical stances - Whyte (1955), Biddle (1979), Goffman (1968), for example, would in their different ways see role as a crucial concept in understanding social behaviour, and as such one which could be fruitfully applied to the problem of the behavioural deficits of those considered mentally ill, insofar as these are social consequences of their condition, not directly associated with the underlying pathology of the condition itself.

Social role is seen as the expectations held of the occupant of a social position, and those expectations are held both by the members of the group of which that position is part, and by members of the wider society with whom the role occupant comes into contact. Schizophrenia, or other psychiatric conditions detach individuals from the groups of which they are members, and may leave them in a situation where there is no role available or in which the only possible role is that of mental patient.

This situation would therefore be seen as anomic, and thus adding social psychological problems to those of schizophrenia. Such an approach certainly provides insight into the social condition of the schizophrenic and the basis for an explanation of his behaviour. But sociological explanation must of necessity take the psychology of the individual as given, as part of the ceteris paribus clause of sociological explanation, and it can therefore only give a broad explanation and equally simple remedies. If the condition itself was led to maladaptive learning or caused behavioural deficits in the individual, social role theory has nothing to add.

The present research, therefore, while conscious of the value of the insights of role theory, and of the sociology of mental illness provided by Coulter (1973), Szasz (1971), Goffman (1968) and others, has relied mainly on social psychological theories and research in the area of social skill.

The male personal pronoun used when referring to schizophrenics generally is intended to indicate both male and female schizophrenics.
CHAPTER 1
THE CONCEPT OF SOCIAL SKILL

1.1. INTRODUCTION

1.2. THE ANXIETY-REDUCTION MODEL OF SOCIAL SKILL IMPAIRMENT

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1.7. SUMMARY & CONCLUSIONS
1.1. INTRODUCTION

The way in which social skill is conceptualized and social impairment viewed is of fundamental importance in determining the strategies used in the assessment of (and subsequent training in) social skill. This chapter, after a brief resume of the history of social skills training, examines the various models of social skill and looks at some of the recent developments in the area in relation to the social skills model proposed by Argyle & Kendon (1967).

Social skills training has, until recently, been developed relatively independently in Britain and the USA, and the ideas and practices involved have emerged from a number of different sources. Experimental social psychology, particularly in Britain, and behaviour theory and therapy (perhaps more so in the USA) have been important in this development, with contributions from other areas of psychology (such as cognitive theory and therapy) and other disciplines (e.g. linguistics and sociology).

In England, in the late 1960s, Argyle and Kendon (1967) proposed a model of social skill and suggested that social skills could be taught like any other skill. Argyle and his colleagues subsequently used this model (and other concepts of social behaviour developed within the framework of experimental social psychology) as a basis to 'train' clinical populations in appropriate social behaviour.

Social skills training is now widely used in psychiatric (and other) settings and although in the UK other workers in the field have developed the concept of skill further (e.g. Trower 1982, Spence 1982), the original social skills model has undoubtedly been the single most influential factor in the development of training in the UK.

Meanwhile in the USA, researchers and clinicians had been expanding the concept of 'assertion', originally proposed by Wolpe (1958) to include a wide range of social behaviours. Indeed, Wolpe had envisaged assertion as meaning more than simply standing up for one's rights. He suggested that
assertive behaviour would include the 'proper expression of any emotion other than anxiety towards another person' (1971, p. 81). Lazarus (1973) went even further to include the ability to initiate, continue and terminate general conversations under the rubric of assertive behaviour.

Currently, however, the term social skills has generally been adopted in the USA when referring to a wider range of social behaviours whilst the term assertion seems to have reverted more to its original meaning and usually refers to such behaviours as standing up for one's rights, refusing requests and expressing both positive and negative feelings towards another (e.g. Eisler, Hersen, Miller & Blanchard (1975)).

Assertion and social skills training has been carried out in the USA (as in the UK) with psychiatric patients but in addition, there is a considerable body of literature on assertion training, particularly in relation to dating behaviour in college students who of course provide a ready-made sample for academic researchers. Social skills training programmes have also been suggested for many other specific groups such as the mentally handicapped (Wilkinson & Canter, 1983), adolescents with behaviour problems (Spence & Spence, 1980), and couples (Birchler, 1979).

Although schools of social skills and assertion training in the UK and USA have developed comparatively independently, there is considerable overlap between the two particularly in terms of the procedures developed for the assessment of skill, the methods of training employed and, perhaps to a lesser extent, the actual content of training programmes.

In more recent years there has been a good deal of cross-fertilization of ideas between the two countries. However there are some quite fundamental differences in the way in which workers in the field - theoreticians, clinicians and researchers - have conceptualized social skill. In England, the original (Argyle's) and subsequent models of social skill have been developed from the theoretical consideration and empirical study of normal human social behaviour. The American models of social skill on the other hand, have been developed from theories of social impairment, mostly derived from work carried out with clinical populations, and these models offer various explanations of impairment: that social skills are inhibited
(1) by anxiety (the anxiety reduction model), (2) by the individual possessing a limited behavioural repertoire, (skills acquisition model) or (3) by poor or faulty cognitive - evaluative appraisal of the situation (cognitive models). Yet a social dysfunction may develop for a number of reasons (Bellack, 1983) which may not be explained in terms of any one simple model. In response to the limitations of the three impairment models mentioned above, and undoubtedly influenced by the work of Argyle and recent work carried out in England, more comprehensive combined models have been developed or adopted in America (e.g. McFall, 1982).

The following models of social skill or social skills impairment can therefore be identified:

i. anxiety reduction
ii. response acquisition
iii. cognitive
iv. complex

These vary considerably in that the first three models are primarily hypotheses about the aetiology of social malfunction, while the last offer more complete models of social interaction with implications for reasons for impairment.

These models are discussed in this chapter, which concludes with the exposition of an 'expanded model' of social skill (Section 1.6.). This is based on Argyle and Kendon (1967) but includes later concepts in an attempt to show what an up-to-date model of social skill would look like. Only part of this model is examined in this research because the model is too complex to be tested as a whole by a single post-graduate researcher.

(The assessment procedures associated with the models listed above are dealt with in Chapter 3).

1.2. THE ANXIETY REDUCTION MODEL OF SOCIAL SKILL IMPAIRMENT

Wolpe (1958, 1971), the founder of assertion training in the USA, was one of the most important figures in the early development of behaviour therapy. On the basis of clinical observation, he came to the conclusion
that many of his patients were unassertive in their social and working lives. He was particularly interested in the application of learning theory principles to a variety of clinical problems and in particular to the problem of lack of assertiveness.

Wolpe suggested that it was anxiety which prevented people from behaving assertively and expressing their legitimate rights and feelings, an idea derived from his work on reciprocal inhibition. He believed that it was physiologically impossible to be anxious and assertive at the same time, and that anxiety could be unlearned through the pairing of anxiety provoking stimuli with anxiety inhibiting responses, in this case, assertion.

The anxiety reduction model of social skill therefore makes the assumption that the individual has the necessary social skills in his repertoire of behaviours, but anxiety prevents him from using them. There is a fair amount of support for this model; for example, Arkowitz, Lichenstein, McGovern & Hines (1975) found that men who had heterosocial problems had adequate social skills when they were requested to interact with a woman in the laboratory but it appeared that unrealistic anxiety inhibited their social performance in the natural environment. However Wolpe's explanation in terms of reciprocal inhibition and the responses of the autonomic nervous system has been invalidated by subsequent work in the field. (E.g. Parkinson & Rachman(1980), Rachman & Hodgson(1980)).

From the point of view of research, this model has the serious drawback that it is basically a hypothesis about the aetiology of impairment and how to rectify it; it contains no model of normal social functioning and therefore creates problems when it comes to assessing difficulties and measuring change, the emphasis being on the reduction of anxiety.

1.3. THE RESPONSE ACQUISITION MODEL OF SOCIAL SKILL IMPAIRMENT
Interest in social learning theory (e.g. Bandura, 1977) in relation to the acquisition and maintenance of appropriate social behaviour, as well as disillusionment with the psycho-physiological approach of Wolpe and others led to new explanations of social skill deficits. In contrast to Wolpe's anxiety reduction model, which explains deficits in terms of anxiety, the
response acquisition model sees maladaptive social behaviour in terms of the absence of specific response skills (e.g. McFall & Twentyman, 1973). Here the assumption is that the individual has never learned, or has somehow lost, the behaviour necessary for effective interpersonal functioning.

The emphasis in this model is on the assessment and training of overt, observable behaviours i.e. the verbal, non-verbal and paralinguistic components of the individual's repertoire of social behaviour.

Once again, this model says little about normal social behaviour, it only explains why someone might be impaired in this respect. It does however suggest a way of analysing social skill in terms of its behavioural components (verbal and non-verbal) which has provided a basis for studies which examine the differences between socially skilled and unskilled subjects (e.g. Trower 1982) and which attempt to establish which behaviours are associated with social skill in particular situations.

1.4. COGNITIVE MODELS OF SOCIAL SKILL IMPAIRMENT

One of the more recent developments in clinical psychology has been the emergence of cognitive therapies within the context of behaviour therapy (Beck 1976, Meichenbaum (1977, Ellis 1970), and a variety of models and procedures have been offered for use with clinical populations. As yet, the cognitive learning approach is relatively diverse and no one system or model has been formalised. This diversity is reflected in the cognitively based models of social skill which have been developed as a result of (a) interest in, and awareness of, the role of cognitions in the production of maladaptive behaviour and (b) dissatisfaction with the behaviourally-oriented response acquisition model of social skill. In part, this dissatisfaction stemmed from the assumption implicit in that model that there was a continuum of 'social skill' with unsocially skilled people at one end and socially skilled people at the other. It would follow that social skill is a trait of the individual which (if this were the case) would be consistent across situations. Yet it would seem that individuals may be socially unskilled in one situation and not in another, i.e. that social skill is situation specific rather than an attribute of the individual (Argyle, Furnham & Graham, 1981). Many social skill
clinicians, researchers, etc. (e.g. Linehan, Goldfried & Goldfried, 1979) therefore began to look outside the behavioural model of social skill and started to examine cognitive functioning related to social skill in an attempt to increase their understanding of social skill deficits.

These developments took place mostly in the USA and at that time many workers in the field failed to recognise that in England, in 1967 Argyle & Kendon had published their model of social skill. This is a comprehensive model of social functioning and includes both behavioural and cognitive aspects of skill. (This will be discussed in detail in section 1.5).

As stated above there is no one cognitive model of social skill and proponents of this perspective vary widely in their emphases. Some of the cognitive processes discussed in relation to social skill include the following:

- Knowledge of appropriate behaviour (Bellack, Hersen & Turner 1979).
- Understanding the particular emotions and intentions guiding the behaviour of the interpersonal partner (Morrison & Bellack 1981).
- Perceiving accurately the relevant stimuli (Bellack 1979).

The socially unskilled person, according to this theoretical approach, may be free from anxiety and have the necessary behaviours in his repertoire, but he may be unable to put them to use because of impairment of cognitive functioning.

From the point of view of research the cognitive models of skill open up endless possibilities but the concepts are complex and little is known about the functioning of normal populations in this respect. In the
absence of the adoption of a comprehensive model of social skill, individual researchers have tended to take a particular cognitive aspect of skill which interested them, e.g. the expectation of the consequences of assertive behaviour, and to test it empirically. We therefore have a somewhat patchy picture of the contributions made by various cognitive processes to social skill.

1.5. **COMPLEX MODELS OF SOCIAL SKILL**

The search for a 'cause' of social failure has led, in some cases, to an oversimplification of the issue. As Bellack (1983) states 'A social dysfunction may develop for a number of reasons........ Furthermore, maintaining factors may be different from the factors which precipitated the difficulty' (p. 39). There has therefore been an increasing interest in more complex and comprehensive models of social skill.

The first social skill model was proposed by Argyle & Kendon (1967). Unlike the models of skill impairment described above, this model, derived from experimental social psychology, provides us with an explanation of the 'process' of normal social behaviour which contains both cognitive and behavioural elements. It has been particularly influential in the U.K. and, more recently, in the U.S.A.

Argyle & Kendon's model is based on the analogy of serial motor skill developed for the analysis of sensory motor skills. It envisages the individual 'carrying out a series of actions that are related to the consequences that he has in mind to bring about' in which behaviour is 'directed, adaptive, and far from automatic, though it may be seen to be built of elements that are automatized' (p.56). They saw this process in terms of a cycle (represented in fig. 1) consisting of the goals, perceptions, translation (of perceptions into actions) motor responses and observation of feedback.

FIG. 1.1.

**SOCIAL SKILLS MODEL** (Argyle & Kendon, 1967)
Trower, Bryant & Argyle (1978) discussing the model in relation to mental health, suggest that failure at any point in the social skills cycle can lead to a worsening spiral of events, with inappropriate actions leading to more negative feedback, greater anxiety and withdrawal. Argyle & Kendon (1967) suggest that social failure may be (a) primary, leading to social rejection and failure to cope, which leads to anxiety and other symptoms or, (b) a secondary result of other personality disturbances leading to social rejection and incompetence and hence to an exacerbation of stress.

Some ten years later Wallace (1978), apparently independently, developed a similar information processing model of socially skilled behaviour. On the basis of a survey of the literature on interpersonal problem-solving skills, he theorized that socially skilled behaviour was the end product of a chain of behaviours. This begins with accurate 'reception' of relevant interpersonal stimuli (corresponding to Argyle's social perception stage of the cycle), moves to the 'processing' of these stimuli to generate and evaluate possible response options from which the correct one is chosen (similar to Argyle's translation stage and also including the concept of goal in the selection of response alternatives) and ends with appropriate 'sending' of the chosen option (the motor output or behavioural responses).

More recently Trower (1982) has placed even more emphasis on the cognitive processes involved in social skill. In his 'generative' model of social skill he distinguishes between social skill and social skills. Social skills, are defined as single elements of behaviour such as looks, nods and sequences of elements such as greetings, and social skill as the process of generating skilled behaviour drawing on existing repertoires, organising them into new sequences according to discourse and situation rules, goals and sub goals. He emphasises the importance of monitoring, which he sees as the directing of attention outward to the environment (social cues etc.) or inward to the self (internal beliefs and standards). He suggests that the skill process would involve a continuous switching between the two. In this model, the behavioural response, although important, seems to be secondary to this cognitive process.

The above models all include cognitive and behavioural elements involved in the social skill process. The only complex model to date to involve autonomic functioning in relation to social skill is that of McFall (1982). Effective performance, according to his model, requires that the individual
in addition to being able to utilise appropriate cognitive skills such as rational thinking, self-instruction and problem solving, and to emit overt competent responses, possesses the ability to control autonomic arousal. Although this model is somewhat less specific as regards the cognitive aspects of skill than the models described above, it does add an important dimension to the concept of socially skilled behaviour lacking in the above models.

The complex models discussed in this section suggest ways of looking at social behaviour (rather than explanations of impairment) and, as such, allow for more systematic research and hypothesis testing. They also present a very different picture of man from the more mechanistic earlier models. Here man, rather than being a helpless passive behaving organism, is seen as active, pursuing his own goals, engaging in rational thinking about situations and generating alternative solutions.

1.6. **AN EXPANDED MODEL OF SOCIAL SKILL (based on Argyle & Kendon 1967)**

By starting with a model of social skill set out in Argyle & Kendon (1967) and incorporating more recent work of theirs and of others, it is now possible to present a rather more comprehensive model of socially skilled interaction.

It should be noted that some of the empirical work and concepts discussed below, whilst not necessarily novel in themselves, have only recently been considered in relation to social skill. Whilst they are of relevance at a theoretical level, and in relation to the ensuing chapters on schizophrenia and the assessment of social skill, some of the concepts are too recent to have been incorporated in the planning of the empirical work of this study, which was based on the original Argyle & Kendon model of social skill. Argyle & Kendon presented their model in terms of goals, perception, translation, motor responses and feedback. In this expanded model it is envisaged that the social skill cycle starts a stage earlier in that the individual arrives in the situation in which the interaction takes place with a 'cognitive schema' and a degree of 'social knowledge' which will influence not only his subsequent actions, but his goal and his perception of the immediate situation. In this model these cognitive elements, although present before the interaction occurs, are not seen as temporarily sequential, but will impinge on all stages of the cycle.
1.6.1. **COGNITIVE SCHEMA**

The starting point of Argyle's model is the individual's goal which influences subsequent perceptions, translation processes and motor responses. In this expanded model of skill it is proposed that the cycle starts one stage earlier in that the individual in formulating his goals will do so in the light of a particular cognitive schema. That is, he will go into the situation not only with a goal, but also with certain cognitions or beliefs about (a) himself, his abilities and the sort of person he is, (b) the others he is likely to meet in the situation and (c) the situation itself.

(a) **Self cognitions and social skill**

Although there is an increasing body of literature on the relationship between negative cognitions (self-statements, beliefs and thoughts) and depression, researchers working in the domain of social skills have only recently begun to carry out empirical work in this area. For example, Mandel & Shranger (1980), in an attempt to demonstrate the effect of self-cognitions on behaviour, presented their subjects with a list of either self enhancing or self critical statements which the subjects were instructed to read and try to 'experience'. They found that those who had read the self-critical statement took longer to initiate a conversation, spent less time in conversation, had less eye contact, smiled less and had less facial expressiveness in role play situations than those who had read the self-enhancing statements. These results would suggest that the individual's self-cognitions prior to an interaction will influence in some considerable way his behaviour during the interaction.
(b) Cognitions about others and social skill
It is suggested that the way in which the individual thinks about others in the situation may influence the way he behaves in the situation. Eisler Frederiksen & Peterson (1978) were interested in the relationship between cognitions about others and assertiveness in everyday social situations. Their results indicate that low assertive subjects compared with high assertion subjects anticipated others would respond to them in a positive manner significantly less often. This would suggest that there may be an association between the way in which the individual thinks about others in the situation and the way in which he behaves.

(c) Cognitive construal of situations
In addition to cognitions concerning self and others, there are also thoughts or beliefs about the actual situation. For example, Forgas (1983) using multi-dimensional scaling explored how his subjects cognitively construed a number of everyday situations. He identified three dimensions relating to episode cognition. Dimension 1 separates easy and routine episodes from difficult and demanding episodes; Dimension 2 - evaluation - differentiates between pleasant and entertaining episodes and unpleasant situations; and Dimension 3 which separates superficial non-involving events and intense and involving interactions. He found that the way in which situations were cognitively represented played an important role in social skill.

Although the empirical work in this area is somewhat limited, the results of studies such as those described above would suggest that the individual's cognitive schema is important in relation to social skill and is an area worthy of further exploration.

1.6.2. SOCIAL KNOWLEDGE
The term 'social knowledge' is increasingly being used in relation to social skill but, as with the term 'cognitive' its meaning is often unclear or assumed. Here the term is used to refer to (a) a knowledge of the meaning of various response cues and (b) a knowledge of the particular norms which operate in specific situations.

(a) A knowledge of the meaning of response cues.
This is of major importance to the accuracy of social perception, although it might be questioned how far people can agree on the meaning of such cues. However, a number of studies have shown that people experiencing
certain emotions or attitudes adopt particular behaviour that enables others to recognize their feelings. For example, in a study by Burns (1964) there was considerable agreement amongst judges as to the relative status of various managers presented on silent film. However it would seem that the communicative significance of some non-verbal behaviours, e.g. hand movement, is rather more variable (Argyle, 1969) and will also be culturally influenced. Similarly, with the emotional tone of speech; different people will express the same emotion in different ways. For example, Davidz (1964) found that, when subjects were asked to read aloud neutral passages in a manner intended to convey fourteen different emotional states, they varied considerably in their ability to do so. He also found that those who could do this well were also good at recognising emotions in the speech of others.

If, then, there are so many individual, not to mention possible cultural differences between people in the response cues they emit, it is questionable whether it is reasonable or even possible to expect anyone to possess a knowledge of their meaning. Furthermore, people do not respond only to one cue but to a combination of inputs (Warr & Knapper, 1968). It may be that only the more obvious, clearly defined, salient behaviours are amenable to any consensus in interpretation, e.g. an extremely aggressive posture. For more subtle distinction, e.g. in determining when someone is laughing at another's ineptitude in a supporting or derisory manner, it may be necessary to look at the response cues in combination and during the course of the interaction.

(b) A knowledge of social norms
It is suggested that the individual will also take into the situation some knowledge (or lack of knowledge) of the norms or rules which may be operating in that situation. Argyle, whilst recognising that different settings would require different behavioural strategies, did not incorporate this aspect of skill into his original model. Trower, Bryant & Argyle (1978), however, in relation to this model, describe the individual as 'acting according to rules.......' (p.8). Although it is now widely recognised that social skill is situation specific, there has been very little attention paid to the norms of the particular situations in which the behaviour in question occurs. Much of the literature in this area
comes from sociology. Goffman (1971) for example, describes a social norm as being 'that kind of guide for action which is supported by social sanctions, negative ones providing penalties for infraction, positive ones providing rewards for exemplary compliance' (p.95). He distinguishes between prescriptions (e.g. supportive ritual) and proscriptions (e.g. respect for another's territory); principles (norms felt to be desirable intrinsically) and conventions (those whose support comes from a current agreement to facilitate mutual dealings by means of them); strictures (requiring full compliance) and standards (supporting an ideal that no one is expected to realise fully; substantive (regulating matters of value in their own right) and ritual norms (displays, ceremonies). Other writers in similar areas of sociology have talked about shared meanings and background expectancies of everyday scenes which Garfinkel (1967) suggests are used as a scheme for interpretation and which Schutz (1966) called the 'attitude to daily life'.

Yet these norms, rules, background expectancies are rarely made explicit. Garfinkel (1967) tells us that whilst the individual is responsive to this background 'he is at a loss to tell us specifically of what the expectancies consist' (p.22). Goffman also suggests that the individual would have difficulty in formulating the rule in general terms upon request. 'Ordinarily an act of deviance or an act of notable conformance is required before he can demonstrate a competence to make judgements as if geared by a rule' (p.97).

Goffman suggests that, because social norms are almost always couched in general terms, any deviation on any one occasion when the rule is supposed to apply can give the impression that the actor may be delinquent with respect to a whole system of rules of which the one in question is a part. And of course, such information is often taken as relevant for an appraisal of the actor's moral character. Trower, Bryant & Argyle (1978) suggest that there are some situations in which rules exist which, when broken, cause distress and concern and there are other situations which are governed by social norms and in these situations a variety of acts or moves would be considered relevant or permissible.

Clearly then, an awareness of the social norms (even if they are difficult to formulate or make explicit and even if the individual decides to ignore or deviate from them) is crucial to the concept of social skill.
1.6.3. GOALS

Argyle's social skills model presents a view of the person actively pursuing his chosen goals. His choice of goal will clearly be influenced by a number of factors: the situation and his cognitive representations of it, his cognitions about himself and others, his knowledge of the social norms operating, previously reinforced outcomes of similar situations and his belief in the amount of control he has over the outcome (Rotter, 1966), and personal characteristics such as his age, class, marital state etc. Social goals (such as making friends, extracting and giving information, persuading) it has been suggested, are desired because they provide outlets for basic needs such as affiliation and achievement (Trower, Bryant & Argyle, 1978). Goals, according to Argyle, are hierarchically organised, the longer sequences of behaviour being controlled by conscious plans with the shorter sequences being habitual and mainly unconscious; patterns of behaviour, once established, being typically executed without much conscious deliberation (Bandura, 1977). In terms of the social skill process the goal will influence what is relevant and salient at the perceptual level as well as at the cognitive and performance levels (Trower, 1979).

There has been some criticism of the notion of social goals and goal-directed behaviour. Yardley (1979) points out that 'most interactions are meaningful in themselves and not consequent on the achievement of extrinsic goals' (p.56). Thibault & Kelly (1978), however, suggest that whilst some of the responses in an interactional sequence are instrumental in that they move an individual towards a goal, there are others which are consumatory in that they "engender" the goal state. That is, the goal may be extrinsic to the interaction such as being successful at a job interview or intrinsic to the interaction such as enjoying talking with friends. The problem seems to arise from the use of the word 'goal' in this context. This implies that there is an attainable end result, a desired outcome. Whilst this might be the case for those situations where the goal is extrinsic, in other situations where the goal is intrinsic and there is no specific 'outcome' as such, the behaviour may still be intentional and purposeful. Possibly in those situations the term 'behavioural planning' might be more appropriate than the word 'goal'.

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The whole area of goals has been sadly neglected in the social skill literature. In the area of assertion it has, until recently, been assumed that assertive behaviour is desirable in certain situations and the goals are implicit in the situation (e.g. to stand up to the boss who you feel is taking advantage of you). However, the individual might cognitively construe the situation quite differently and have very different goals (e.g. to please the boss) or conflicting goals either in the short term (e.g. to please his boss yet to get home on time to help his son with his homework) or between short and long term (e.g. to please his boss but to be considered as someone with drive and initiative, not a "yes-man").

In looking at social behaviour, if a view of man as actively directing his own behaviour is taken, it is necessary to look at that behaviour in relation to his goals, or behavioural intent in the situations in which the behaviour occurs.

1.6.4. PERCEPTION
In order to produce a (skilled) response (necessary for the attainment of his goal), the individual needs to perceive accurately the state of affairs in the immediate situation (Trower, 1979). Argyle drew on a number of studies which highlighted the importance of perception in social interaction and recognised the need for more work in this area particularly on the information selected and made use of within the ongoing activity of the interaction.

Leukel (1972) defines perception as the development of 'meaning' that depends on past and present input. In terms of social perception, the individual needs to attend to the people in the situation and to the social and physical environment in which the interaction takes place. Yet any individual can only attend to a fraction of the available information in a given situation so what actually he attends to becomes of critical importance. The individual will also be influenced by his goals in the situation which in turn may be influenced by his cognitions of himself, others in the situation and the situation itself. For example, a young man at a party whose goal is to start a relationship with a woman may pay attention to women in the age range he considers desirable. He may exclude certain women on the basis of his cognitions about himself and others e.g.
'I'm not that good looking; that attractive woman wouldn't be interested in me' and on his cognitive construal of the situation e.g. 'if a not-so-good-looking man tries to chat up a very attractive woman she's bound to turn him down'. He will also need to know what various response cues mean in order to perceive accurately the situation. If a person cannot 'read' the relevant cues in the situation, either because of poor attention to or lack of knowledge about the cues, he will not be able to behave skillfully regardless of his behavioural repertoire. In addition to his perception of the situation and the people in it, the individual will also be influenced by his perception of his behaviour in the situation (e.g. Cook, 1971, Bem, 1972) as well as his more general self-cognitions. Curran, Wallander and Fischetti (1980) found that their control subjects tended to have an enhanced view of their performance in role-played tests, as compared with the external assessors' views. They concluded that this might be part of a normal defensiveness necessary in maintaining some degree of self-confidence in social interaction.

Although most people working in the field of social skills - have recognised the importance of social perception, this area has until recently, been neglected in studies of social skill.

1.6.5. **TRANSLATION**

At this stage of the social skill process, perceptions according to Argyle and Kendon (1967) are 'translated' into performances, i.e. information gathered by the receptor systems is converted into an appropriate plan of action - the decision to make a particular series of motor responses which has been selected from a range of alternatives. The alternatives, according to Bandura (1977) are tested by symbolic exploration and are either discarded or retained on the basis of calculated consequences. In an attempt to define more precisely the processes involved in this cognitive problem-solving stage, Spivac, Platt & Shure (1976) identified a number of separate skills: problem recognition, means-end thinking, causal thinking, perspective taking and consequential thinking.

Until recently it had been assumed by the assertion training school that assertion was generally the most appropriate response in a wide range of situations. This of course makes any consideration of alternatives
redundant. However a number of studies have been designed to look at the consequences of assertive behaviour, and how the individual's perception of the consequences of assertion affects his choice of strategy and subsequent behavioural response. Fiedler & Beach (1978) tested the hypothesis that prior to acting either assertively or non-assertively, people weigh the consequences that could be expected to result from various strategies and select the behaviour that appears most favourable. Their results confirmed that the difference between participants who chose an assertive response and those who did not, lay in the latters' assessments of the probabilities that bad consequences would occur and good consequences would not. The decision to act assertively, they concluded, is based on the expected consequences. However, as the research literature has shown (e.g. Epstein, 1980), assertion may not always be the most adaptive response and submission (somewhat to the surprise of some researchers) has been shown to produce positive social consequences. Important predictive factors according to Epstein are the situation, the type of request and characteristics of the interpersonal partner. Kern (1982), for example, found that low assertive individuals consistently devalued the competency and desirability of non-assertive models in the role-play scenes.

It can thus be seen that the (until recently) widespread assumption that assertion is a good thing leading to positive consequences is now being challenged. The social skill literature is full of such assumptions, i.e. that one particular behaviour is more desirable than another, only some of which are based on research evidence. There is clearly a need for more rigorous empirical testing particularly in the area of the consequences of particular behavioural strategies.

The consequences of any behaviour will, of course, depend on the situation in which the interaction takes place and the individual's social skill in the situation will to some extent be dependent on his awareness or knowledge of the social norms which operate in that situation. This knowledge is particularly relevant at the translation stage.

1.6.6. **BEHAVIOURAL RESPONSE**

The individual, having been through the aforementioned procedures now acts. The behavioural response in the situation will therefore depend on a number of factors: e.g. his goals (Section 1.6.3.), his perception of himself,
the situation and others (Section 1.6.4.), knowledge and understanding of
the social norms (Section 1.6.2.), the decisions he made at the translation
stage (Section 1.6.5.). The behavioural response will also be determined
by the individual's repertoire of social behaviours and level of social
skill as well as factors relating to the situation itself, the others in
the situation, their goals, behavioural responses etc.

Argyle (1969) has suggested that social behaviour is hierarchically
organised; at the lower molecular level there are single elements, and at
the higher, molar level are units or sequences composed of strings of
elements. The elements of social behaviour have been classified in various
ways, but in relation to social skills training they are usually divided
into verbal and non-verbal elements, with the non-verbal elements further
divided into visual and vocal ones. No attempt is made here to present or
summarise the vast body of literature in these areas but comprehensive
reviews have been made by Argyle (1975) (on non-verbal behaviours) and
Clark & Clark (1977) (on verbal behaviour).

An increasing body of research over the past few years has attempted to
identify what constitutes a competent response and to isolate the
components of socially skilled behaviour. Numerous researchers have stated
that social skills are situation-specific and a number of experimenters
have pointed out that different skills are required in different situations
and that some people will be skilled in one situation and not in another
(e.g. Curran et al, 1980, Eisler et al, 1975). In discussing this issue,
Curran (1979) concludes that the utility of any particular (behavioural)
act as an indicator of social skills must be determined on an empirical
basis for each criterion situations. Specific guidelines for determining
response competence in particular situations were laid down by Goldfried &
D'Zurilla (1969). They suggest the following steps in their
behavioural-analytical approach: (a) situational analysis - a
comprehensive survey of the relevant situations in the environment with
which the individual must cope; (b) response enumeration - for each
problematic situation a sampling of responses is obtained; (c) response
evaluation - for each of the situations the degree of effectiveness (in
terms of whether the response is likely to resolve the problematic nature
of the situation and avoid negative consequences) and likely consequences
of such action is evaluated. Further steps are concerned with developing
and evaluating a measuring instrument. Goldsmith & McFall (1975) used such
an approach in their careful study of psychiatric patients.
A second approach in establishing systematic criteria for response competence is the known-group approach which involves selecting two groups known to differ in some aspect of skill (e.g. assertion). The subjects then take part in an interaction or role-play test and are rated on specific behaviours previously selected for this purpose. On the basis of this, correlations can be made between the rated behaviours and the skill on which the two groups were sorted. Eisler, Miller & Hersen (1973) and Trower (1980) used similar methods in studies designed to identify the components of assertive and socially skilled behaviour respectively. In most of these studies, response competence is defined in relation to the situation where the goal is either implicit, or dictated by the researchers. Individuals, however, might have very different goals in the situation and this should be taken into account when using information derived from this kind of study.

Workers in the field are increasingly looking to other disciplines to provide information on social behaviour, e.g. Trower (1983) has drawn on work in linguistics, and Curran & Monti (1982) include a chapter on ethology in their edited book on social skills. There is also a substantial literature in conversational analysis conducted by ethnomethodologists which is providing useful information to workers in the social skills field (e.g. Coulthard 1984).

1.6.7. FEEDBACK & CORRECTIVE ACTION

Argyle suggests that the social skill performer uses perceptual cues to take corrective action in the same way as the motor skill performer, i.e. during the interaction he monitors (and subsequently modifies) his performance in the light of continuous feedback from the environment (Trower, Bryant & Argyle, 1978).

Trower (1982) similarly stresses the importance of monitoring emphasizing the continuous switching of attention between 'external' (environmental and situational) and 'internal' (goals, beliefs, standards) monitoring. He suggests that the unskilled person is mainly an internal monitor and tends to miss crucially informative situational cues whereas the skilled person is primarily an external monitor and will be 'a relatively accurate perceiver of situational and personal cues that will guide him or her in
appropriate rule-following behaviour' (p.421). The behavioural outcome of
the monitoring process is, according to Trower, a compromise or
co-ordination between the demands of the situation and the personal beliefs
of the individual.

Snyder (1974) on the other hand tends to ignore the individual's goals,
personal beliefs, etc. He uses the term self-monitoring to refer to
self-observation and self-control, the emphasis being on adapting the
behaviour to the situation, if necessary using the other's behaviour as a
guideline; a process he believes absolutely fundamental to effective
social and interpersonal functioning.

The subsequent response the individual makes will depend therefore on his
goals in the situation, what he is attending to (internal or external
monitoring) and how he interprets this. In any one situation many
interpretations may be made at this stage. For example, take the situation
where A wants to get across a fairly complex point to B. A has launched
into an explanation and at this stage may: (1) perceive the other's
response (external monitoring) and then interpret it in relation to his own
behaviour, e.g. A notices B looks puzzled during the course of speaking and
interprets this as B not having understood the message he is trying to get
across; (2) perceive the other's response (external monitoring) in
relation to his existing knowledge of the situation, e.g., A knows that B
looks puzzled in most situations; (3) perceive his own behaviour (internal
monitoring), e.g. A notices that he is speaking very quickly; (this
observation may or may not have been made in the light of B's response);
(4) pay attention to his own cognitive self-statements, (internal
monitoring) e.g. A notices B looks puzzled and says to himself, "I can
never get my point across, he must think I'm stupid" etc. It becomes
obvious that the resulting corrective action will depend on what the
individual is attending to during the course of the interaction and how he
interprets the stimuli. In the case of (1) A may decide to repeat what he
has said in a different way; in (2) to continue with what he was saying;
in (3) to speak more slowly and in (4) to leave the situation as quickly as
possible.

And so the cycle continues as the individual, having obtained information
by monitoring his own performance and/or response of the other in the
situation and decided on a course of action, proceeds with his response and
the cycle starts again.
1.7. SUMMARY & CONCLUSIONS

In this chapter the development of social skill theory has been examined by looking at simple impairment models, which attempt to explain social skill deficits in terms of (a) anxiety; (b) a limited behavioural repertoire and (c) faulty cognitive functioning, and at more complex models of normal social interaction which to some extent incorporate some of the elements of the impairment models. Argyle & Kendon's (1967) (complex) model of social skill has been discussed in detail and an expanded version of this model has been proposed which includes the concepts of social schema and social knowledge and draws on more recent work particularly in the area of cognitive theory and therapy.

Complex models of social skill have the advantage that they offer a more comprehensive framework for empirical study but on the other hand their very complexity faces the researcher or clinician with an almost overwhelming task in addressing all the issues involved. Indeed Curran (1979) feels that the term social skill should be limited to behavioural acts and that whilst recognising their importance, non-behavioural components such as cognitive processes should be excluded from the definition whilst Trower (1982) suggests that the term 'social skills' be retained to refer to the actual components of social behaviour (looks, nods etc. and sequences of elements (e.g. greetings)), and that the term 'social skill' be used to refer to the process of generating skilled behaviour according to rules, goals and in response to social feedback. Yet interpersonal behaviour is complex with multiple interlocking determinants (Bellack 1983) and to take the behavioural components out of their cognitive context may be misleading. On the other hand, if the concept is too global and all encompassing, it cannot offer a sufficient structure for empirical exploration.

After considering all these issues it was decided to adopt Argyle & Kendon's model (with some elements from the expanded version) as a framework for this research for the following reasons:

1) It represents a triumph of organized theory over the one-off causal hypothesis suggested by the other models.

2) It presents a logical sequence which although not necessarily temporal, allows for the examination of various 'stages' of the cycle.
3) It allows for the framing of hypotheses capable of empirical testing.

4) It is essentially an information-processing model and as such, is particularly relevant to research on schizophrenia.

In Chapter 2 some of the factors (including problems in information processing) which might influence the social skill of the schizophrenic are explored and Chapter 3 the methods used to assess social skill (in relation to the social skills model) are examined. The hypotheses tested in this research are presented in Chapter 4 where the methods of assessment used in this research are discussed in detail. The results of the fieldwork are presented in Chapter 5 and discussed in relation to the hypotheses in Chapter 6.
CHAPTER 2
SOCIAL SKILL AND SCHIZOPHRENIA

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CHAPTER 2
SOCIAL SKILL AND SCHIZOPHRENIA
2.1. INTRODUCTION

In this chapter those areas of psychological and sociological theory and research which have implications for the social functioning of the schizophrenic are explored. It is argued that social skill deficits in schizophrenia may be a result of (1) impaired acquisition of skill, (2) disruption of the social skill process by factors associated with the underlying pathology of the disorder, (3) difficulties in re-learning appropriate social behaviour due to either, or both of the above, plus factors in the social environment of the schizophrenic.

Schizophrenia is one of the most complex and devastating of human conditions. The overwhelming episodes of delusioned and hallucinatory experiences which often occur at the acute stage can be preceded, accompanied or followed by a condition of severe and chronic social disablement which may include emotional apathy, slowness of thought and movement, underactivity, lack of drive, poverty of speech and social withdrawal which severely limit the individual's social performance (Wing 1978). 'The most severely impaired person can convey little information through the use of verbal or non-verbal language, the facial expression is wooden, the voice is monotonous, the body posture and gait is stiff, little use is made of gesture, words are few and may convey little meaning' (p. 11). The individual may seem to be unable to think to any purpose, but to go off on side-tracks so frequently that only routine activities requiring little thought remain unaffected.

Creer and Wing (1974) in a study of schizophrenia from the relatives' perspective described in detail many of the more chronic features of schizophrenics living at home. The most withdrawn patients would try to avoid contact with other people altogether and common problems included the patient's inability to occupy himself during the day, to cope with most social situations, such as mealtimes, and having little or no conversation. However, about a third of the patients were over-active from time to time, for example 'rushing around the house excitedly, or pouring out a stream of incoherent chatter about various unrealistic schemes or fantastic ideas' (p. 14), or pacing up and down the room intermittently. Examples of
embarrassing behaviour included making personal remarks, walking out of the room in the middle of a conversation and sitting in 'awkward looking' postures. Brown, Bone, Dalison and Wing (1966) in a study of 111 patients admitted to three British psychiatric hospitals showed that five years later, 34% of patients were 'socially disabled' although living outside the hospital.

Many approaches have been taken to the study of schizophrenia and the literature is extensive and diverse. Studies have focussed for example on the genetic and biochemical aspects of schizophrenia, family dynamics and behaviour, the social environment and culture and the psychophysiology, cognitive functioning and behaviour of schizophrenic individuals. Theories have been concerned with both the aetiology, (biological and environmental), and with understanding the underlying processes of schizophrenia. New approaches in related and unrelated sciences have been applied to the study of schizophrenia and a multiplicity of models for explaining the frequently inexplicable aspects have been proposed, investigated and interpreted.

To date, however, not a great many studies of schizophrenia have been directly concerned with the detailed and specific social behaviour of the schizophrenic and although it is generally accepted that schizophrenics can show a wide range of social deficits, attempts to specify their precise nature in any comprehensive way have been limited.

The present study examines the social functioning of schizophrenics from the perspective of the social skills model presented in chapter 1. This includes not only the social behaviour of the individual, both verbal and non-verbal, but his cognitive schema, social goals, i.e. what he wants to achieve in his interactions, and his perception of the situation. The first part of this chapter is concerned with theory and research in schizophrenia of relevance to social functioning. The social skill model emphasises the cognitive aspects of social skill and therefore theories relating to cognitive deficits in schizophrenia are of particular importance to the study of social behaviour. Other factors which might also influence the social behaviour of the schizophrenic will also be discussed. These include motor disturbances, medication, premorbid social functioning, interaction in the family and attitudes of others to mental illness. In the second part of the chapter these factors are discussed in relation to the social skills model suggested in chapter 1.
2.2. EXAMINATION OF THE LITERATURE ON SCHIZOPHRENIA WHICH 
HAS IMPLICATIONS FOR SOCIAL SKILL

2.2.1. COGNITIVE FUNCTIONING AND SCHIZOPHRENIA

Thought disorder has long been considered one of the most important features of schizophrenia (Bleuler 1911, 1950, Kraepelin 1883). However, with the introduction and increasing sophistication of techniques of experimental psychology, it has become apparent that abnormalities in many areas of the cognitive process may be present in schizophrenia, including the sensory input stage, the central processing and motor response stage. Thought disorder, as such, is now generally accepted to be the result of a dysfunction of the process of perception and attention on which ordered thought must ultimately depend (Venables 1978). The classification of such processes as attention, perception, information processing etc. is to some extent arbitrary. Recent advances in understanding brain functions have strongly suggested that these processes are not discrete categories but are interrelated and do not reflect a real separation of loci in the brain (Corbett 1976).

The experimental literature in this area is vast and the results often contradictory. There is considerable evidence that experimental behaviour is affected by the dimensions of acute/chronic, process/reactive, and paranoid/non-paranoid and some experimenters have ignored these variables. Medication of course can also affect test behaviour.

The information presented below is not intended as a comprehensive summary or review of the research literature, but merely as an indication of the range and extent of cognitive disorder and the major areas of research.

2.2.1.1. SENSORY AND PERCEPTUAL DISTURBANCES

Hallucinations represent an extreme example of misperception in schizophrenia, but other anomalies of perceptual accuracy are also reported in the literature. These have been well summarized in Wing (1978).

Studies of size estimation (summarized by Spohn, Cancro and Thelford 1976), for example, have found that schizophrenics have trouble with size constancy. Venables (1964) hypothesized that size estimation is a function
of visual scanning behaviour which is in turn related to level of arousal, and Silverman (1964) claimed that the schizophrenic who scans extensively is more likely to underestimate the size of an object, whereas one who scans too little, overestimates the size. Neale and Cromwell (1968), however, found such differences in size estimation in the absence of scanning under stimulus presentation conditions too short for eye movements to take place.

Another area of perceptual functioning which has been investigated in relation to schizophrenia is that of perceptual acuity. Studies in this area include tests of simple sensory sensitivity and also tests involving the detection of sensory signals against a noise background.

The most common method of examining sensory effects is to see how far there are differences in the speed of response to different sensory stimuli (reaction time). Venables and Tizard (1956, 1958) found that in a sample of unmedicated schizophrenics, reaction times to auditory stimuli were longer than those to visual stimuli. This is a reversal of the pattern found in normal subjects. These studies suggest a disturbance in the auditory modality in schizophrenia which has been examined further by measuring auditory thresholds. Emmerich and Levine (1970) found that schizophrenics showed loss in sensitivity in comparison with normals. Levine and Whitney (1970) provided further data suggesting that schizophrenic people function over a narrower range of stimulus intensities than normals.

A number of experiments have been concerned with auditory signal detection. Typically, the subject is exposed to periods of 'noise' and in some of those periods a 'signal' is present that the subject has to detect. Rappaport, Hopkins & Hall (1972) found that, in comparison with normals, paranoid schizophrenic patients detected signals less accurately and were more cautious in reaching decisions. Non-paranoid schizophrenic patients detected signals less accurately under easy signal/noise conditions but as well as normals under difficult conditions. Rappaport, Silverman, Hopkins & Hall (1971), however, showed that the effect of phenothiazines was different in paranoid and non-paranoid schizophrenic patients. With increasing dosage, signal detection performance worsened among non-paranoid and improved among paranoid.
Studies of visual thresholds in schizophrenic patients do not appear to have been made, although Venables and O'conner (1959) have suggested that for moderate stimulus intensities, the use of the visual modality appears to elicit less dysfunction than the auditory. There are however visual analogues of the auditory signal in noise studies. Stilson and Kopell (1964) and Stilson, et al. (1966) found that although schizophrenics did not differ from normals in their performance in detection of shapes without interfering 'noise' signal, they performed significantly worse when interference was present. In a further study Kopell and Wittner (1968) found that Chlorpromazine worsened the detection of visual signals from 'noise'.

Thus in the area of visual and auditory perception schizophrenics have been found to have deficits which in most cases appear to increase with the administration of the usual medication for schizophrenia. According to Corbett (1976) normal perception contributes to a sense of environmental stability through perceptual constancies, and integration of experiences from different sensory modalities, both of which are disturbed in the schizophrenic. The possible implications of these findings for social skill will be discussed in section 2.3.2.3.

Perception of Emotion

Whereas the above studies were concerned with discrete aspects of perception, other studies have explored the area of complex perception more directly relevant to social functioning - the perception of emotion in others. These studies have been summarized by Wallace (1984). Most studies have used photographs portraying various emotional states which subjects were asked to identify. The studies of chronic schizophrenic patients (Dougherty, Bartlett, and Izard (1974), Walker, Marwit, and Emory, (1980) showed that schizophrenics were less accurate than non-schizophrenics at identifying emotions other than happiness. Muzekari and Bates (1977) also used short videotaped scenes in addition to photographs. Pilowski and Bassett (1980) however found that the less chronic schizophrenics in their study were not significantly less accurate than either neurotics or alcoholics.

Newman (1977) was more concerned with auditory perception. He presented his subjects with tape-recorded sentences which were paired with incongruent tones of voice and found that schizophrenics took more notice
of the verbal messages rather than the tone-of-voice in which the sentence was read, whereas non-schizophrenics paid less attention to the verbal content.

It would therefore seem that the more chronic schizophrenics experience some difficulty in recognizing emotions in others from photographs and video recordings, and that in ambiguous situations where there is a mismatch between the emotional tone of voice and the content of speech, schizophrenics, unlike non-schizophrenics, may pay more attention to the verbal content.

The relevance of these studies on perception to social skill are discussed in Section 2.3.2.3.

2.2.1.2. THOUGHT DISORDER, ATTENTION & INFORMATION PROCESSING

Both Bleuler (1911, 1950) and Kraepelin (1919, 1971) maintained that thought disorder was the predominant feature of schizophrenia. They viewed cognitive disturbances as important mediators between overt schizophrenic symptoms and what they believed to be an underlying neurological defect. Bleuler proposed that a 'loosening of associative threads' leading to over-inclusiveness was the primary aspect from which all other symptoms must be derived. Cameron (1964), elaborating on the ideas of Bleuler, described the schizophrenic as having the inability to conserve conceptual boundaries with the result that there is an incorporation of irrelevant ideas. A vast theoretical and research literature has been generated on the subject of schizophrenic thought, much of which is derived from or related to theories of attention and information processing.

Schizophrenics frequently report difficulties in attending. For example: 'Everything seems to grip my attention although I am not particularly interested in anything. I am speaking to you now but I can hear noises going on next door in the corridor. I find it difficult to shut these out and it makes it more difficult for me to concentrate on what I am saying to you'. (McGhie and Chapman 1961).

'My thoughts wander around in circles without getting anywhere. I try to read even a paragraph in a book, but it takes me ages, because each bit I read starts me thinking in ten different directions at once'. (Freedman 1976, p.108).
Many investigators have considered perceptual and cognitive changes to be sequelae to alteration in attention and arousal rather than fundamental symptoms. McGhie and Chapman (1961) were among the first to view attentional deficits as the core of schizophrenic pathology. The inability of schizophrenics to attend selectively, they maintained, leads to a flood of stimuli, difficulty in concentrating, increased attention to irrelevant details and attention to previously ignored aspects of experience. When the person is unable to attend selectively, he is passively assaulted by disconnected pieces of information and stimuli.

They describe the normal development of mature perception and cognition as one of increasing differentiation and organization of incoming sensory data. They point out the significance of the reticular formation in signalling to the cortex to attend selectively and to call up related memories and associations. If, what they refer to as the 'spotlight of attention', is too narrow, not enough information is recalled; if it is too broad, there is over-inclusiveness, as in acute schizophrenia.

McGhie and Chapman use the concept of filtering developed by Broadbent (1958) who published the first general model of human information processing. In this model 'a nervous system acts to some extent as a single communication channel so that it is meaningful to regard it as having a limited capacity' (p.297). Limitations were conceptualized both in terms of the amount of information and the speed at which it could be handled. Sensory events do not enter the channel directly, but after being registered by short-term receptors, and held in short-term store. To protect this system from overloading, Broadbent proposed the existence of a hypothetical selective 'filter' that immediately precedes the limited capacity portion of the nervous system. The selection (of sensory events) is not completely random and the probability of a particular class of event being selected is increased by certain properties of the event, for example, intensity, and by states of the organism (drives). It was suggested by Payne (1966) that over-inclusive thinking might be due to a deficit in this filter mechanism, the function of which, he suggested, is to screen out irrelevant data, not only external, in the form of irrelevant stimuli, but internal in the form of irrelevant thoughts and associations.
The rate of information flow was seen as critical by McReynolds (1960). He stated that there is an optimum rate of stimulation for the organism. Too little stimulation (sensory deprivation) or too much is harmful and anxiety provoking. It has also been suggested that schizophrenics are susceptible to be subject to a higher number of discrete sensory stimuli per time unit of experience than non-schizophrenics. (Lehmann 1966). Ordinarily, according to McReynolds, stimuli are assimilated into one's schema, but if the volume or novelty of stimuli is too great, and new schemas are needed to handle the input, then anxiety occurs. Anxiety here is seen to be the result of too much incongruous or unassimilated material. McReynolds argues that new situations and life crises result in anxiety of this type, and persons who have previously developed an adequate system of constructs can struggle though, but those whose system of constructs is inadequate or erroneous, are likely to experience extreme novelty and discrepancy a good part of the time.

Failure to adapt to novelty, which demands the right amount of arousal for perceptual narrowing and focussing on critical aspects of the situation was also seen by Shakow (1962, 1974) to be an important feature of schizophrenia. He also suggested that the schizophrenic fails in another critical feature of adaptation - reduced arousal when the stimuli becomes familiar. (This is consistent with findings that schizophrenics are slow to habituate (Mednick 1970) and have a chronic disorder of arousal). (See section 2.2.1.3.). As a result, Shakow believed the schizophrenic is unable to maintain a major 'set' or readiness to respond.

The theories discussed above were concerned with notions of stimulus selection. An alternative and influential model of attentional processes in schizophrenia proposed by Broen and Storms (1961) is related to response selection. This model uses the concept derived from learning theory of a 'lowered potential ceiling'. This suggests that we have a hierarchy of responses which can be evoked in a given situation, some more dominant and appropriate than others. The probability of a dominant response occurring in a situation where more than one tendency to respond is evoked, is a function of the difference of response strengths of dominant and competing responses. However, it is hypothesized, there is a maximum value which response strengths may reach (the reaction potential ceiling), then as all
responses, dominant and competing, increase in strength their differences will decrease and the probability of the dominant or appropriate response occurring will lessen. Broen and Storms view schizophrenics as suffering from 'collapsed response hierarchies' due to a hypothesized lower response ceiling, so that the probability of a dominant response levels off earlier than in normals, especially under conditions of high arousal. Arousal increases the strength of the dominant response to a certain level, beyond which it remains constant, while the strengths of the subordinate responses continue to increase. The hierarchy may also be distorted by low levels of arousal, when the strengths of all the responses may be similar. In this model of arousal, schizophrenics are seen to have basically 'normal' response hierarchies, but the probability of dominant or appropriate responses is lessened, while the probability of inappropriate responses increased.

Although there are close parallels between stimulus filtering and response selection theories of attention in schizophrenia, they are, to some extent, competing models. Helmsley (1975), however, states that from the research evidence no firm conclusions can be drawn as to whether a stimulus or response model is the appropriate one to adopt because it is not inconceivable that both systems may show deficits.

Helmsley went on to examine the relationship between cognitive deficits and schizophrenic symptoms, drawing on the work of Miller (1960) who suggested a number of mechanisms by which (normal) individuals cope with and adapt to the stresses of information overload. The most important of Miller's categories were (a) 'Omissions' - the temporary non-processing of information whenever there is an extreme of overload which Helmsley suggests might be demonstrated by underresponsiveness, poverty of speech and flatness of affect (more prominent in chronic patients); (b) 'Error' - processing incorrectly then failing to make the correct adjustment shown by inappropriate responding and incoherence of speech particularly in the acute stage of schizophrenia; (c) 'Queueing' - delayed responses during peak load periods; it may then be possible to catch up during lulls in the information input shown by retardation, particularly in chronic patients; (d) 'Filtering' - the systematic exclusion of certain categories of information shown by narrowed attention; (e) 'Approximation' - an output
mechanism whereby a less precise or accurate response is emitted, several stimuli eliciting the same response rather than there being a differentiated response to each; demonstrated by schizophrenic delusions; (f) 'Escape' - leaving the situation entirely, or taking steps that effectively cut off the flow of information; the clinical phenomena, according to Helmsley are social withdrawal and catatonic symptoms. He suggests that the method of adaptation chosen will depend on the severity of the overload, personality factors independent of the psychosis and environmental factors.

Thus several explanations and competing models of attentional deficits in schizophrenia have been proposed, with Helmsley attempting to present a more integrated model which suggests that information overload is the result of a combination of defective filtering and a slowness to respond.

Information Processing and Social Problem-Solving

Most of the empirical work on attention and information processing has, similarly to the research on perception in schizophrenia, been in the experimental tradition, but there have been some studies focussing on the schizophrenics information processing abilities in relation to problem situations. Platt and Spivack (1972a) found that psychiatric inpatients (70% of whom were schizophrenic) generated fewer response alternatives to the problem situations and had a lower ratio of relevant and total responses than normals and in a further study (Platt & Spivack 1972b) that those patients (the majority of whom were diagnosed schizophrenic) whose premorbid social functioning was poor, generated significantly fewer responses and had a significantly lower relevancy ratio than good premorbid patients. Platt and Siegel (1976) also found a relationship between the level of psychotic pathology (as measured by the Minnesota Multiphasic Personality Inventory) and problem-solving ability.

The ability to generate alternative solutions to interpersonal problems therefore seems to be poor for the psychiatric patients (most of whom had a schizophrenic disorder) in the above studies and worse for those with poor premorbid social functioning and for those whose illness was more severe.

Thought disorder attention and information processing is discussed in relation to social skill in section 2.3.2.
2.2.1.3. AROUSAL

Whilst attention is primarily a behavioural concept with hypothesized central nervous system components, arousal is a physiological term specifically related to the autonomic nervous system, and is inferred from responses such as galvanic skin response (GSR), pupilography, pulse and respiratory rate. Both attention and arousal are frequently considered to be central processes disturbed in schizophrenia. Cromwell (1978), in discussing the relationship between attention and arousal asks: 'Is the disorder of arousal, whether overresponding or underresponding, a necessary antecedent to the disorders of attention and information processing? Or are the attentional and information processing disorders the more primary features? Does the schizophrenic experiencing information processing difficulties become aroused, or does the arousal disorder create the difficulty in processing?' (p.222). He goes on to suggest the possibility that there is no causal relation or that they are mutually causal.

In general any stimulation of an organism produces an increase in arousal. If a person is underaroused at the time the stimulus impinges, the increase in arousal may improve performance. If he is optimally aroused, or overaroused, the same increase in stimulation may impair performance. This is the paradoxical feature of arousal described by Malmo and Shagass (1949), as the inverted U curve of efficiency.

The concept of arousal in schizophrenia is intuitively appealing. Acute schizophrenics often experience their first breakdown after an event, or series of events of a clearly stressful kind. The research on arousal in schizophrenia, however, is replete with contradictions and paradoxical findings. This may be accounted for by a variety of factors: for example, schizophrenia may be a number of different disorders, or different varieties of the same disorder; results may be influenced by the severity of the disorder, changes throughout the stages of the disorder, inherent variability within the subject, the process/reactive and acute/chronic dimensions of schizophrenia or the fact that different subjects may have a 'preferred' mode of responding to stress. These factors may account for two somewhat contradictory theories of arousal proposed by Venables and Mednick.
According to Venables (1964, Venables and Wing 1962), acute schizophrenics are extremely underaroused and because of this they are unable to attend selectively and are at the mercy of sensory input. Chronic schizophrenics on the other hand, are overaroused and their attention is narrowed. They withdraw in an effort to limit stimulation and prevent further arousal. Most acute schizophrenics, however, although described by Venables as being underaroused, seem to benefit from medication which decreases their level of arousal.

Mednick (1958), applying learning theory, derived the following hypothesis: schizophrenics are chronically overaroused persons who eventually withdraw to such an extent that they are underaroused. Potential schizophrenics have a high level of anxiety which interferes with, rather than aids performance. It leads to overgeneralization (of conditioned responses) increased avoidance of potentially anxiety provoking situations, (thoughts, situations or people) and remote, autistic thoughts, which eventually lower the anxiety at the cost of removing the person from reality. In the course of an acute episode, the already highly aroused pre-schizophrenic experiences even more anxiety which according to Broen and Storms (see previous section) increases the strength of response tendencies, particularly subordinate ones. Increased generalization is associated with decreased differentiation and impairment on complex tasks. Irrelevant associations intrude, thoughts seem to race and the person thinks he is going crazy (which adds to the anxiety).

Both these theories suggest that chronic schizophrenics withdraw in an attempt to limit stimulation and reduce arousal. Data from Venables and Wing (1962), however, showed those patients who were most withdrawn also had the highest levels of arousal. This would suggest that these patients would also have a narrowed range of attention. However, Chapman and McGhie (1962) found chronic patients abnormally distractable and this seems contrary to the notion of narrowed attention. Broen (1966, 1968) has suggested a way of reconciling these findings. He proposed that the chronic patient narrows his range of observation and thus restricts the number of stimuli actually received but, within the stimuli actually observed, the range of attention is broad.
Clearly, a generalized concept of arousal is itself too simplistic and recently there has been less emphasis on overall arousal level in schizophrenia and more concern with measurements of brain function. This work has reflected recent technological advances and the findings of neurological and biochemical research. Although Spohn and Patterson (1979) suggest that it is questionable whether the term arousal has any value as a clarifying concept in schizophrenia, the work on heart rate levels, skin conductance and blood pressure continues to suggest that schizophrenics are hyper-aroused (Shapiro 1981).

Most of the research into the cognitive psychophysiological functioning of schizophrenics has been conducted under laboratory conditions. The implications of the findings for social skill will be discussed in section 2.3.

2.2.2. VERBAL BEHAVIOUR AND SCHIZOPHRENIA
One of the most striking features of schizophrenics is their use of language, particularly in the acute phases of the disorder. Schizophrenic language has been studied extensively from a number of perspectives, e.g. behavioural theory, psychoanalytic theory, psycholinguistics and cognitive theory. The first part of this section examines some of this work, and the second part looks at the research on speech patterns of schizophrenics in conversation.

2.2.2.1. SCHIZOPHRENIC LANGUAGE
The following dialogue is an excerpt from an interview with a thought-disordered schizophrenic who had been withdrawn from antipsychotic medication two weeks prior to the interview.

Interviewer. Have you been nervous or tense lately?
Schizophrenic. No, I got a head of lettuce.
Interviewer. You got a head of lettuce? I don't understand.
Schizophrenic. Well, its just a head of lettuce.
Interviewer. Tell me about lettuce. What do you mean?
Schizophrenic. Well, ...... lettuce is a transformation of a dead cougar that suffered a relapse on the lion's toe. And he swallowed the lion and something happened. The .... see, the... Gloria and Tommy, they're two heads and they're not whales. But they escaped with herds of vomit, and things like that.
Interviewer. Who are Tommy and Gloria?
Schizophrenic. Uh, ..... there's Joe DiMaggio, Tommy Henrich, Bill Dickey, Phil Rizzuto, John Esclavera, Del Crandell, Ted Williams, Mickey Mantle, Roy Mantle, Bob Chance.....
Interviewer. Who are they? Who are those people?
Schizophrenic. Dead people .... that want to be fucked .... by this outlaw.
Interviewer. What does all that mean?
Schizophrenic. Well you see, I have to leave the hospital, I'm supposed to have an operation on my legs, you know. And it comes to me pretty sickly that I don't want to keep my legs. That's why I wish I could have an operation.
Interviewer. You want to have your legs taken off?
Schizophrenic. Its possible, you know.
Interviewer. Why would you want to do that?
Schizophrenic. I didn't have any legs to begin with. So I would imagine that if I was a fast runner, I'd be scared to be a wife, because I had a splinter in my head of lettuce. (Neale & OltmanS 1980).

The patient's communication is obviously disturbed. Although the statements appear grammatically correct, it is not clear what they mean. While there is evidence to suggest semantic disturbance in schizophrenia, there has been thought to be little evidence for a deterioration in the structure of language (Venables 1978), although more recent evidence has suggested otherwise (Neale & Oltmans 1980).

Bleuler (1911, 1950) suggested that thought disorder was the main feature of schizophrenia, the fundamental disturbances being a loosening or breaking of associative threads resulting in the disturbance of speech. Between the 1920's and mid 1950's language was viewed by most psychologists as strings of individual words linked together by learned associations. Bleuler believed that in normal communication speech is logical and coherent because the person's association of ideas and hence words are guided by a 'unifying concept of purpose of goal' (Bleuler 1950, p.16). Schizophrenics, according to Bleuler lose this goal-directed behaviour and therefore their verbal associations are often idiosyncratic.
A number of studies have been carried out to test this notion, most of them using word association tasks which measure the simplest aspects of linguistic performance. Several investigations have shown that schizophrenics, particularly those who were most severely disordered and who have had poor pre morbid adjustment, do produce verbal associations that are less common than those produced by normal subjects (e.g. Moran 1953, Shakow & Jellinek 1965) but other studies have not found such differences (e.g. Fuller & Kates 1969). Therefore on the basis of this type of test the assertion that schizophrenics produce deviant word associations has to some extent, been challenged.

Kraepelin (1919, 1971) noted that schizophrenics often substitute one word for another in a way that is incorrect in a given context and Chapman & Chapman (1973) have conducted a series of experiments concerned with speech perception that has demonstrated this phenomenon. They found firstly that schizophrenics more often indicated that two words were conceptually similar on the basis of mere association (e.g. gold and fish) than did normals and secondly that in their response to words that have more than one meaning, schizophrenics tend to show a preference for the more common aspect of the word meaning regardless of the context of the sentence. The Chapmans stress however that the errors schizophrenics make most frequently are those that are most common in normal subjects' performance and that schizophrenics' errors are not strictly idiosyncratic but are exaggerations of normal response biases.

Contextual aspects of language in relation to speech perception have been further investigated using the 'Cloze' procedure in which, every nth word is deleted and the subjects have to guess the missing word (e.g. Honigfield 1963). Schizophrenic subjects tended to guess fewer words than normals. Data from experiments using this procedure have been taken to indicate that schizophrenics are less able than normals to decode verbal messages, and to support the Chapmans' theory that schizophrenics are less influenced by contextual cues. Errors made by schizophrenics in this procedure were also interpreted by Williams (1966) as indicating that they associate to the preceding word rather than the context of the sentence. This interpretation is consistant with Salzinger's (1973) immediacy hypotheses, stated as the tendency for schizophrenic behaviour to be controlled by those stimuli most immediate in the environment. It is also in accord with theories of narrowed attention discussed above.
The studies discussed above were related to Bleuler's concept of loosening of associations. There have however been a number of other explanations of schizophrenic language.

Two distinct 'attitudes' of thought - abstract and concrete were defined by Goldstein (1944, 1964). The abstract attitude is voluntary and reflective and the person is not tied to the immediate properties of the stimulus, but is free to reflect on its properties and select a response. The concrete attitude is evidenced by a variety of errors including excessive anchoring in situational context, inability to assume a mental set, or to initiate an action, inappropriate shifting of sets, loss of 'as-if' behaviour, loss of abstract meaning of words, inability to integrate different stimuli and inability to abstract common qualities of form concepts. Goldstein found that schizophrenics were less consistent in their attitudes and more influenced by personal ideas and preoccupations than were persons with organic disorders. The breadth of Goldstein's concepts and the difficulty in testing his theory that all schizophrenic errors are due to the concrete attitude have been severely criticized by Chapman & Chapman (1973), although Grant (1970) provides some evidence to support Goldstein's view that schizophrenics are more influenced by personal ideas and preoccupations. He found that normal people in conversation were more able than schizophrenics to generalize in situations where they were emotionally involved. E.g. if sexual problems were being discussed, the normal person would tend to generalize when the discussion entered an area of relevance to him and talk about the problem as an impersonal one, thereby lowering the emotional content of the situation. Grant suggests that the schizophrenic person is unable to do this: he becomes more and more involved and the behaviour patterns relevant to the situation go on recurring.

Other theorists have seen schizophrenic language difficulties to be related to social factors rather than an underlying disorder in thinking. Sullivan (1944, 1964) for example clearly distinguishes between thought (which he defines as a refinement of reverie) and language, which he sees as a social, communications device. He suggests that in childhood, language is magical, autistic and full of personal associations and meanings. As it becomes socialized, language is used to satisfy needs and gain security.
The schizophrenic, according to Sullivan, has lost hope of achieving satisfaction and uses language primarily to gain security. He also suggests that what he calls the 'auditor' (which, he states, we all use to make sure that our language is suitable for public consumption) is inadequate and immature. Cameron (1944, 1964) also saw the schizophrenics' language difficulties as social. He suggested that the basic difficulty is that the schizophrenic is unable to take the role of the other, particularly during misunderstandings and failures in communication. Once again these theories are difficult to test empirically.

Yet another group of theorists, the psychoanalysts, have argued that thoughts and language are disrupted in schizophrenia by the conflictual or affect laden nature of the material. Difficulty however in defining what constitutes such material has yet again presented problems for empirical exploration. Chapman & Chapman (1973) nevertheless found that there is a sizeable literature which supports the hypothesis of increased deficit in response to emotionally charged items; and Rutter (1977b) has suggested that differences between schizophrenics and non-schizophrenics in speech patterns can be found when the topic of conversation is personal (e.g. in an interview situation) rather than impersonal.

Much of the more recent work on schizophrenic language has been concerned with the complex cognitive processes involved in the production of schizophrenic speech. The cognitive processes that intervene between an idea and its expression, however, are poorly understood (Cairns & Cairns 1976), but one promising area of investigation into these processes is the study of hesitations that speakers make before and during speech.

Pauses in speech tend to occur either before major clauses (conventional) and reflect major decision points when the speaker is considering in which direction he may proceed, or within clauses before particular words (idiosyncratic) which seem to accompany lexical decisions (Clark 1971). Rochester, Thurston & Rupp (1977) found that thought disordered schizophrenics differed significantly from other schizophrenics and normals in the duration of initial silent pauses and that their conventional hesitations generally were longer than those of the other two groups, although there were no differences between the two groups in the nature or
duration of idiosyncratic pauses. Neale & Oltmans (1980) have suggested that schizophrenics may become distracted during conventional pauses (which may reflect major planning stages) and Maher (1972) has suggested that at the terminal point of an utterance inappropriate associative intrusions occur, which normal speakers are able to inhibit and which schizophrenics cannot.

A number of studies (summarized in Neale & Oltmans (1980)) have examined schizophrenics' use of linguistic rules (e.g. Rochester 1973, Rochester, Harris & Seeman 1973). The evidence of these studies indicates that schizophrenics are linguistically competent, i.e. they are competent speakers in the sense that they know how to use the syntactical rules of language, but that they are sometimes 'egocentric or autistic in taking for granted too much knowledge in the listener' (p.398), (a view consistent with that of Cameron (1944, 1964). They conclude that the problem is not one of competence, but of performance: schizophrenics experience difficulty in carrying out active conscious mental operations in short-term memory which affects linguistic performance. It is therefore the performance which depends on the interaction of grammatical knowledge and complex cognitive skills which is often disturbed, rather than the linguistic knowledge as such. They further suggest that the difficulties schizophrenics have in considering the needs of their listeners may be related to impairments in controlled processing.

2.2.2.2. SPEECH PATTERNS IN SCHIZOPHRENIC PATIENTS
Other investigators interested in verbal behaviour have examined the patterns of speech of schizophrenics. Chappie, Chappie, Wood, Miklowitz, Kline & Saunders (1960) found that chronic psychiatric patients were more likely than psychiatrically normal controls to allow silences to develop and to interrupt the interviewer in an interview situation. These results were replicated in a study by Matarazzo and Saslow (1961).

Rutter (1977a, 1977b) however found very few differences in patterns of speech between his groups of acute schizophrenics, remitting schizophrenics and normal chest patients. Nor were there any differences between acute and chronic schizophrenics (although the chronic group was highly selected omitting from the sample those who were mute and highly disturbed); although the results do suggest that schizophrenic subjects were less
willing than others to speak or to hold the floor and were less responsive. Rutter suggests that differences between the results of these and previous studies might be due to different situations. Earlier studies were all conducted in the context of a clinical interview where the subject was expected to talk about himself in a very personal way, whereas the context for Rutter's studies was an informal situation with the subject of conversation in the first study being an item from Choice Dilemmas Questionnaire (Kogan & Wallach 1964) - that is, a relatively neutral topic and for the second study a similar topic plus a discussion about a television programme or an area of interest.

The differences in results might also be interpreted as due to differences in situations, the earlier studies taking place in more formal, hierarchical situations whereas Rutter's conversations took place in more friendly situations where there was more equality between the conversation partners. Exploration of the importance of situation and topic for schizophrenic conversation might be a fruitful area for further investigation.

2.2.3 NON-VERBAL BEHAVIOUR AND SCHIZOPHRENIA

Much of the evidence concerning the non-verbal behaviour of schizophrenics is descriptive and comes from the observations and impressions of clinicians. There are however, some exceptions to this and the results of some of the empirical studies of non-verbal behaviour are presented in this section, after a brief description of motor behaviour disturbance in schizophrenia taken from the Diagnostic and Statistical Manual of Mental Disorders (third edition) (DSM III), and a description of motor disturbances resulting from anti-psychotic medication almost universally used in the treatment of schizophrenia.

2.2.3.1. MOTOR BEHAVIOUR DISTURBANCE ASSOCIATED WITH THE SCHIZOPHRENIC DISORDER

DSM-III (published by the American Psychiatric Association) describes various disturbances in motor behaviour which may be seen in schizophrenia, particularly in the chronic or more acutely florid forms: 'There may be marked decrease in reactivity to the environment with a reduction of spontaneous movements and activity, and the individual may appear to be
unaware of the nature of his surroundings. He may maintain a rigid posture against any efforts to move him. There may be apparent purposeless and stereotyped excited motor activity not influenced by external stimuli. The schizophrenic may also voluntarily assume inappropriate postures and resist or counteract instructions to move him. In addition, there may be mannerisms, grimacing or waxy flexibility.

2.2.3.2. MOTOR BEHAVIOUR DISTURBANCE RESULTING FROM ANTIPSYCHOTIC MEDICATION

The antipsychotic (neuroleptic) drugs discovered in the early 1950's are the predominant form of treatment for schizophrenia today. They are administered during both the acute and chronic phases, the chronic schizophrenic generally being maintained on a lower-level dose.

The major problems caused by neuroleptics are their short-term and long-term side effects. Many of them produce disturbances in motor behaviour, some of which can be controlled by additional medication. Shapiro (1981) has classified the side effects as follows:

**Akathesia:** These are the most common side effects characterized by motor restlessness and muscle discomfort (such as inability to sit still - 'something made me get up and start moving').

**Parkinsonian Side Effects:** Generally begins with tremors, but may begin with rigidity, trouble in initiating movement, weakness and muscle fatigue, increased salivation, slurred speech, masklike face and festinating gait.

**Acute Dystonic Reactions:** This is a long-term side effect for which there is no known treatment and includes involuntary movements of the oral facial region and chorea like movements of other muscles.

Despite side effects, neuroleptic drugs are the primary form of treatment in schizophrenia. Numerous studies have shown they are more effective than other medications, placebos and psychotherapy in alleviating such symptoms as hallucinations, delusions, projection, suspiciousness, confusion, ideas of reference, blunted affect, withdrawal and agitation (Davis and Cole 1975).
2.2.3.3. NON-VERBAL BEHAVIOUR AND SCHIZOPHRENIA - EMPIRICAL FINDINGS

Although disturbances in motor behaviour associated with both the underlying neurological processes of schizophrenia and the effects of medication have been described extensively in the schizophrenic literature, there is, as yet, limited empirical work on the non-verbal behaviour of schizophrenics.

One of the most widely studied areas of non-verbal behaviour (in relation to schizophrenia) is looking behaviour. There has been some evidence that schizophrenics engage in less eye contact than non-schizophrenics (Argyle, 1967, referring to work by himself and Kendon. Harris, 1968, referred to in Rutter 1973) recorded the frequency of 'eye contact' of each subject while waiting in a room with his mother, father, a peer and an authority figure. Compared with normal subjects, the schizophrenic patients engaged in less-frequent looking. In addition, Argyle found that schizophrenics looked in very short glances and tended to gaze at an angle of 90° to the line of regard. These results were not replicated by Jones & Panda (1979), nor on the whole by Rutter (1977b, 1978), who suggests that abnormal patterns of visual interaction in schizophrenic patients are not a general characteristic but are restricted to situations in which the topic is of a personal nature (e.g. a clinical interview). This, he suggests, may account for the differences between schizophrenics and controls found in earlier studies. Exline et al (1979) however found that in an experiment in which schizophrenics and normals were required to talk about three personal emotional experiences, the 'direct gaze' of normal subjects combined over all three stories tended to be less (although not significantly) than for the schizophrenic subjects. The results of these studies are therefore somewhat contradictory and indicate the need for further study in this domain.

Another area of non-verbal behaviour which has been studied (although by no means extensively) in relation to schizophrenia is facial expression. Jones & Pansa (1979) described schizophrenics as showing a paucity of facial movement and found significant differences between schizophrenics and non-schizophrenics in both the frequency and duration of small mouth
smiles with schizophrenics making fewer smiles than the controls. These differences however were related to specific situations and did not occur in all the situations examined in the research. There were no significant differences in any of the situations in eyebrow movement, nor in broad smiles.

Grant (1972) conducted an ethological study of facial expression in different groups (including schizophrenics) in different settings. One of the advantages of an ethological approach is that it is concerned with sequences or combinations of behaviours rather than duration and frequency measures of discrete behaviours more commonly employed in studies of non-verbal behaviour. Grant identified four basic groups of elements which he interpreted sociobiologically in terms of flight, aggression, relaxation, and as having an attractive function. Although he was not making direct comparisons between schizophrenics and non-schizophrenics, he suggested that as individuals become more seriously ill, there is an increasing use of the 'flight' group of elements demonstrated by mouth corners back, lips in, lick lips and swallow, with three other elements closely associated - small mouth, chin in (and crouching posture).

It is difficult to make comparisons between these two studies which used very different methods of analysis. Is for example, a 'small mouth smile' the same as 'mouth corners back'? If so, then it would seem that the results are on the face of it, apparently contradictory. Grant, however, in his ethological study, used only one situation, the interview, and if, as has been suggested, facial expression as well as eye contact is situation specific, this might account for any differences in smiling behaviour between the two studies.

Considerable deviations from normals in facial movement were also found by Heimann (cited in Izard 1979). In addition he found that schizophrenics' facial expressions were less symmetrical than normals and even when left-right movements were synchronous, one part tended to show larger movements than the other. There has been considerable interest more recently in hemisphere assymetry in schizophrenia (e.g. Tucker 1981) which
is of relevance to non-verbal behaviour, particularly the expression of emotion. Indeed Gotteil et al (1976) concluded that although schizophrenics could reproduce emotions through facial expression as well as non-schizophrenics, there was considerable evidence of negative 'background affect' present in the facial expressions across different posed expressions.

Another area of investigation in the field of non-verbal behaviour in schizophrenia has been the study of hand and body movements. In a study of schizophrenics who were 'prone' and 'non-prone' to future hospitalization Grand et al (1975) found that those who were 'prone' engaged in significantly more self-stimulation than those who were 'non-prone', whereas the 'non-prone' patients showed more discrete body-focused hand movements. In a subsequent study, Grand (1977) showed that of chronic patients (those presumably 'prone' to future hospitalization) it was those who were 'isolated' as compared with those who were 'beligerant' who showed more continuous self-stimulating body-focused movements. Finger and hand touching (consisting of one hand acting upon the other in bilateral, repetitive, non-directed fashion) significantly distinguished isolated from non-isolated patients. The rates of object-focused movements were low in both groups. Grand suggests that isolation and hyperarousal seen in chronic (i.e. hospital-prone) schizophrenic patients is also accompanied by stereotyped motor activity which seems to regulate attentional processes via proprioceptive feedback, enabling such patients to maintain their focus of attention.

Condon and Brosin (1969) were particularly interested in the synchronization of movement in schizophrenia. They found that in their schizophrenic subjects, different parts of the body moved 'out of cycle' with the rest, or at a different tempo. For example 'Her left arm, with the hand held fixed and limp, moved slowly in a sustained direction for approximately one third of a second and was disharmonious with the rhythm of her speech. While the left arm was moving in this fashion the right arm was moved and changed in harmony with the speech' (p. 830).

There have been a number of studies of the paralinguistic behaviour of schizophrenic patients. The contribution of vocal indicators to the generally recognized 'flattening of affect' in schizophrenia has long been recognized and descriptions of monotony of intonation (poor pitch
variation) can be found in a number of studies on vocal cues in schizophrenia (e.g. Goldolfarb, Braunstein & Lorge (1956), Ostwald (1965) and Chevrie-Muller, Dotart, Seguier-Dermer & Salmon (1971)). Some researchers have approached the study of non-content aspects of schizophrenic speech from a structural perspective in which voice qualities are analyzed through paralinguistic and electronic procedures (e.g. Scherer 1979, Leff & Abberton 1981); others have taken a more functional approach in which voice qualities are analyzed through judgements made by others (e.g. Todt & Howell). Both approaches have been used with some degree of success to distinguish schizophrenics from other diagnostic groups.

Leff & Abberton (1981) found that although clinically it is virtually impossible to differentiate auditorily between schizophrenics whose expression of emotion is damped down in severely depressed patients, it was possible to do so using a laryngograph. They found that the frequency range of retarded depressives was in fact narrower than that of the schizophrenics and that there was a clear distinction between blunted and non-blunted patients.

Adopting a more functional approach, Chevrie-Muller et al (1978) also found that psychiatric symptoms (and personality traits) were related to voice characteristics. However as the sample was of mixed psychiatric diagnosis and the results interpreted in relation to symptomatology rather than diagnosis, the implications for schizophrenia can only be extrapolated from the results. It would seem that emotional withdrawal (which might be viewed as a symptom of schizophrenia) is strongly associated with poor variation in pitch, abnormal voice quality (husky, breathy or harsh) and disturbed articulation, and blunted affect again with abnormal voice quality. Emotional withdrawal was also strongly associated with the personality characteristics perceived from the tone of voice as unusual, disagreeable and unemotional.

A similar approach was adopted by Todt & Howell (1980) who were also interested in the relationship between vocal cues, psychopathology and judgements of personality traits based on perceptions of tone of voice. They found that schizophrenics were characterized as having less inflection and poorer enunciation than the non-schizophrenic psychiatric patients and were perceived ( auditorily) as more inefficient, more despondent and more moody.
It would therefore seem that there is considerable evidence that schizophrenics exhibit vocal cues that differentiate them from other patient groups and which are perceived as indicators of negative personality characteristics by their listeners.

Therefore although the results of the studies on eye gaze are to some extent equivocal, in other areas of non-verbal functioning - facial expression, body movement and paralanguage, clear differences have been found between schizophrenics and non-schizophrenics.

2.2.4. RESPONSE TO SOCIAL STIMULI

There are a number of studies concerned with examining the schizophrenics' response to, and competence with social stimuli which are of particular relevance to social behaviour.

Whiteman (1954) conducted a study of the performance of non-deteriorated male schizophrenics compared with that of normals on tests of formal and social concepts. This consisted of four cards, three with a common theme (e.g. one person rescuing another) the fourth irrelevant. The subject was required to eliminate the irrelevant card and give a verbal explanation of the theme common to the other three. The performance of the normal group was significantly superior to that of the patient group but the superiority was greater in the task involving the formation of social concepts than with formal concepts.

Further evidence that the performance of schizophrenics is disrupted by the presence of social aspects of the stimulus was provided by Davis and Harrington (1957). They found no difference between patients and normals on problem-solving tasks involving non-human stimuli, but significant inferiority of the patients when stimuli representing humans was involved.
Using cartoons, Senf, Huston & Cohen (1956) investigated the social comprehension of several groups of psychiatric patients. Each group was required to identify the environment shown in the cartoon, the speakers and listeners, their social roles, the action going on in the scene, the motivation of the figures, and finally, the cartoon's humorous aspects. The chronic schizophrenic group were significantly inferior to all other groups on their responses to every category except that of environmental descriptions. Other groups did not differ significantly from each other.

These studies have all used symbolic representations of humans or social interactions as stimuli in experiments. Williams (1974), however, presented his subjects with a real situation and a choice of human and non-human stimuli. He found that in his experimental waiting rooms situation, schizophrenics spent more time than normals looking at a television programme of fish than at a person, especially when the person tried to engage the patient in conversation.

Another aspect of response to social stimuli was explored by Horowitz, Duff & Stratton (1969), who measured the 'personal space' of schizophrenics. He found that they reported the need for more space around them than normals in response to human stimuli, but the same amount as non-schizophrenics in response to an object.

Evidence that schizophrenics appear to be consistently inferior to normals in tasks in which the stimulus is representative of social interactions and that they wish to avoid social stimuli has been interpreted as supporting Cameron's (1964) hypothesis that the origins of schizophrenia lie in the social history of the individual. However these findings may equally be seen as supporting a hypothesis about the nature of the condition rather than its origin.

2.2.5. RESPONSE TO REINFORCEMENT

The behaviour of schizophrenics has also been interpreted as the outcome of a long history of learning maladapted responses. A recurring objection to this view is that many people present histories of unfavourable learning conditions without developing psychotic behaviour and that many psychotic patients do not have notably deviant histories in this respect.
Consequently, the simple learning position has been modified to include the assumption that there may be fundamental individual differences in learning which would lead to different effects of the same experiences for different individuals. However, the process of acquisition and the process of maintenance of a behaviour need not be a function of the same mechanism and the issue is no longer only whether, and to what extent, schizophrenic behaviour is learned, but also how this sometimes bizarre, often inappropriate, behaviour is maintained independent of its beginnings.

Several investigators have considered that schizophrenia might be characterized as insensitivity to particular classes of reinforcer, for example reward v. punishment, social v. physical reward. For example, Rodnick & Garmezy, on the basis of the work of Dunn (1954) and Garmezy (1952) have suggested that certain stimulus conditions evoke stronger withdrawal tendencies in schizophrenics (than normals) when faced with censure conditions.

A number of experiments (e.g. Cavanaugh, Cohen & Lang (1960), Atkinson & Robinson, (1961)) have looked at the effects of response-contingent aversive conditions (non-social) in test performances and found that schizophrenic performance in fact improves under these conditions. For the schizophrenic, punishment of incorrect responses was more effective than rewarding correct responses. Also, schizophrenics seem to benefit more from punishment than normals. Both beneficial and deleterious effects of an aversive condition on schizophrenics were tested in a reaction time test in which white noise was used either to punish slow responses or as an irrelevant stimulus. In the response contingent conditions, the noise came on with a light that signalled that a response should be made, but could be terminated only by a correct response (the escape group). Another group performed with the noise left on throughout the tests (irrelevant stimulus group). The two groups performed significantly differently from the controls in the opposite directions from each other, clearly indicating that aversive conditions may be beneficial or deleterious for schizophrenics. This emphasises that it is the way in which aversive conditions are used that is important.
The effects of aversive conditions of a social nature were investigated by Reisman (1960) who used pictures, which were presumed to be threatening, as negative reinforcers to control the rate at which patients performed a sorting test. Reactive schizophrenic patients were motivated to avoid the pictures, whereas the process schizophrenic group was not. Reisman concluded that the need to avoid social censure is characteristic of reactive patients rather than schizophrenics as a group.

None of the above results imply that rewarding correct results will not be of benefit to the schizophrenic. It might be supposed, however, that as schizophrenics have been shown to avoid social stimuli in experimental situations that they may be less responsive to positive social reinforcement than non-schizophrenics. Stotsky (1957) found that praise did in fact improve the performance of schizophrenics on simple tasks but that it proved less effective on complex tasks. Olson (1958) reported that praise produced greater facilitation of performance than did verbal censure, but that verbal censure did produce some improvement in performance compared to the effects of giving no reinforcement at all.

The above studies, therefore, would seem to indicate that noxious stimuli inhibit the performance of schizophrenics more than normals, and schizophrenics will avoid them if they can. Paradoxically non-social punishment also appears to facilitate learning more than reward does, although praise has been shown to be more effective than verbal censure although verbal censure was better than no reinforcement at all.

Whereas few people today would regard maladaptive responses to reinforcement as significant in the aetiology of schizophrenia, this work does have implications in the long-term for the schizophrenic who may need to 're-learn' appropriate social responses which may have been adversely affected during the acute phase of the illness.

2.2.6. PREMORBID SOCIAL FUNCTIONING
How the individual has functioned socially before the onset of the schizophrenia is clearly of relevance when considering current social functioning. Indeed, the prognostic value of premorbid social adjustment in schizophrenia has been confirmed by numerous investigations (Strauss,
Klorman & Kokes 1977). In the 1960's and 1970's, the process/reactive dimension received much attention, particularly in the USA, and a major area of research has evaluated the differences between the two categories. The distinction between reactive and process schizophrenia is based on a number of variables most of which refer to social behaviours.

Reactive schizophrenia is characterized by a sudden onset of symptoms, with little or no history of disordered behaviour. Those at this end of the spectrum tend to have been extroverted prior to onset, with normal heterosexual behaviours and interests, were more likely to engage in verbal rather than physical aggression and were well adjusted in their early school years.

Process schizophrenia on the other hand is characterized by a long history of psychiatric impairment and a gradual rather than sudden onset of symptoms. Process schizophrenics tend to have been introverted, often physically aggressive and have had difficulties at school (Kazdin 1979).

The process/reactive dimension is strongly related to prognosis. Reactive patients are more likely to have an episodal problem and good prognosis than process schizophrenics have. The categories process and reactive should always be seen as and points on a continuum, never as discrete categories (Becker 1956).

Phillips (1953) proposed a scale to assess the variables that are related to prognosis. The scale evaluates several aspects and includes sexual adjustment, marital status, types of friends and social behaviour. The social adjustment prior to the onset of schizophrenia as measured by the above variables is related to prognosis and responsiveness to treatment (Farina, Garmezy & Barry 1963).

Strauss, Klorman & Kokes (1977) have suggested three hypotheses that might explain the way in which the process involved in premorbid adjustment might relate to the occurrence of schizophrenia and its outcomes (1) deficiencies in premorbid adjustment reflect vulnerability and/or are the early stages of schizophrenia; (2) deficiencies in premorbid adjustment reflect inability to recover from schizophrenia; (3) recovery from schizophrenia
occurs irrespective of premorbid adjustment but is masked by mistaking poor post-illness functioning for continuing illness when it is only a return to the original poor premorbid levels (Spring & Zubin 1976). Strauss et al (1977) suggest that all three hypotheses might be correct in that patterns of premorbid functioning may determine the vulnerability to schizophrenic symptoms, increase the difficulty in recovering from them and also contribute to a degree of artifact in estimating post-psychotic function.

The way in which the schizophrenic functioned socially before the obvious onset of the illness is therefore extremely important when considering his present social functioning.

2.2.7. THE ENVIRONMENT AND SCHIZOPHRENIA

The theories, research findings and empirical observations discussed above were mostly concerned with the schizophrenic disorder itself. Other investigators have turned to the environment of the schizophrenic in order to increase our understanding of the disorder. Studies of the environment have concentrated on the immediate family, particularly family communication and expressed emotion, and social attitudes to mental illness.

2.2.7.1. FAMILY STUDIES

Family studies have addressed the question of the role of the family in relation to both the aetiology of schizophrenia and in maintaining and shaping the course of schizophrenia once it becomes manifest. The specific areas of relevance to this study are those of disordered communication and expressed emotion.

Disordered Family Communication

The research of Wynne & Singer (1963) and Singer & Wynne (1963) has demonstrated that communication deviance, characterized by poor focus of attention, is a distinguishing feature of families with young adult schizophrenics. They identified two common forms of deviant communication: (a) an amorphous style in which communications are vague, indefinite and loose, and (b) where communications are fragmented. They argue that these are enduring characteristics which precede the onset of schizophrenia and contribute to its development.
Whilst Wynne and Singer have directly observed family interactions for evidence of communication deviance, their research until recently has most often relied on tests of individual family members, using the Rorschach test which, they claim, constitute an analogue of those many daily occurrences in which 'two or more people attempt to establish a consensually shared view of an ambiguous reality' (Singer, Wynne & Toohey 1978, p.500). They found that communication patterns of normal and neurotic young adults were significantly different from the communication patterns of remitting and non-remitting schizophrenics. Similar patterns were observed in both the mothers and fathers of schizophrenics, but differences were most dramatic when the parents' scores were analyzed in combination with one another. In general, schizophrenic offspring came from families in which both parents had high communication deviance scores. The work of Glaser (1976) and Jones (1977) have confirmed these findings.

Hirsch & Leff (1975), however, failed to replicate these findings. They too found significant differences between communication deviance scores of parents of schizophrenics and of neurotics, but there was greater overlap in the distribution of scores. Also, when fathers' and mothers' scores were analyzed separately, only the fathers' scores were found to differ significantly. Their scores were highly correlated with word count and significant differences between families disappeared when this variable was controlled. Hirsch and Leff concluded that communication deviance may be due to greater verbosity of parents of schizophrenics, particularly fathers. Rutter (1978) pointed out that this failure to replicate Wynne and Singers' findings might be due to differences in sample characteristics. Subsequent examination of parents' scores by Singer, Wynne & Toohey (1978) statistically controlling for word count have revealed larger, rather than smaller, differences from normal in deviance scores of parents of schizophrenics.

A number of studies have looked at communication deviance in family interactions. Wild, Shapiro and Goldenberg (1975) observed the communication of parents and young adult sons whilst completing a 20 question problem solving task. Analysis of amorphous attention scores of individual family members revealed that initial differences based on combined parent and family scores were the result of the mothers'
communication deviance. Mothers' scores significantly discriminated between families with schizophrenic offspring and normal controls, with non-schizophrenic psychiatric controls obtaining intermediate scores. They also found that fathers of schizophrenics had significantly more 'closure' problems (as demonstrated by the number of questions asked of the examiner without prior discussion with the family, contrary to instructions) than fathers of psychiatric controls but not more than normals.

When mothers' amorphous attention problems were combined with fathers' closure problems, schizophrenic families were found to differ significantly from normal and psychiatric controls. This is consistent with the assertion of Singer, Wynne & Toohey (1978) that combined parents' communication deviance scores are the best predictors of offspring pathology.

Another area of communication examined in relation to families of schizophrenics has been the degree of shared focus of attention. In interactions where family members were required to arrive at an agreed-upon Rorschach percept, Shapiro & Wild (1976) found that families of schizophrenics described their Rorschach percept in ways which revealed significantly weaker shared meaning than normal families, or non-psychotic hospital control families.

It would therefore seem that when schizophrenics' families are observed interacting around a group task, they are somewhat less distinguishable from psychiatric control families in terms of their communication deviance than they are when measured in individual test situations. The central issue is, of course, whether one or both of these procedures accurately reflect the amount and kind of communication deviance that actually exists in day-to-day interactions.

Expressed Emotion
Another important conceptualization of the family's role in schizophrenia is that of 'expressed emotion' (EE) originally developed by Brown and his colleagues (Brown, Monck, Carstairs & Wing 1962) following a study in which they found that the success or failure of discharged schizophrenics in the community was related to the family group to which they returned, (Brown,
Carstairs & Topping 1958). They began to look at 'dominance', 'hostility', and 'expressed emotion' in interviews with families of schizophrenics taking note of and rating not only the content of the speech, but the way in which it was expressed - the tone of voice, gesture etc. They found that patients returning to homes rated high in 'emotional involvement' had higher relapse rates than those in low emotional involvement homes. Reduced contact in high involvement homes also produced lower rates of relapse.

Subsequent studies were concerned with defining more precisely the concept of expressed emotion and designing more accurate techniques of measurement (e.g. Brown & Rutter 1966, Rutter & Brown 1966). Two aspects which were looked at were 'criticism' and 'warmth' with the emphasis on the way in which things were said.

In 1972, Brown, Bierley & Wing completed a further follow-up in which both critical and positive remarks were counted and overall ratings of criticism, hostility, warmth, over-involvement and dissatisfaction were made. An index of EE was derived from these ratings. This consisted of marked over-involvement, seven or more critical remarks and hostility, or any combination of these. The relationship of expressed emotion to relapse was further refined in a study by Vaughn & Leff (1976). The EE index used was based on six or more critical remarks and marked over-involvement. Their results confirmed original findings that schizophrenic patients returning to high EE homes had a higher likelihood of relapse independent of prior behaviour disturbance. When subjects were combined with an earlier study it was found that patients returning to high EE families who remained on medication or were in low contact with their families relapsed less often. If both factors operated (medication and reduced contact) the effects were additive and relapse rates even in high EE families were only 15%, a risk as low as low EE families. But if neither factor was operating, the relapse rate was 92%.

Although expressed emotion in terms of critical remarks and over-involvement has been assessed reliably, it is still unclear what this is a measure of. It is possible, however, to describe EE in terms of what the relatives say and how they cope with situations. Vaughn (1977) did a
content analysis of the critical remarks and found that high EE families tended to blame the schizophrenic and tended to see changes in the person as due to intensification of previously noted faults. Low EE families were better at recognizing behaviour as due to illness and attributing problems to this. High EE families appeared to cope less well with crises and were most worried and upset. In contrast low EE families were found to be more tolerant and coped with incidents calmly. It is possible, however, that these attitudes to the schizophrenic may reflect factors related to the process/reactive dimension, i.e. the schizophrenic in the high EE family does demonstrate an increase in previously identified 'faults' and the schizophrenic in the low EE family does suddenly appear to be 'ill'. It could equally be argued that these differences could be the result of a history of EE.

However, unlike the theories of disordered communication, the work on EE has been concerned exclusively with the course and outcome of schizophrenia, and makes no assumptions about its aetiological significance.

2.2.7.2. SOCIAL ATTITUDES

Interest in the sociological aspects of mental health has grown rapidly in the 1960's and 1970's and of particular relevance to this study is the work on attitudes to the mentally ill person.

For many, the family acts as an important mediator between the individual and society, and for the schizophrenic, its attitudes, perceptions and acceptance of him must play an important role. Freeman & Simmons (1968a) explored the relationship between family tolerance towards the schizophrenic, social class and level of performance. They found that middle class families were less tolerant of 'deviance' than lower class families even though the post-hospital performance (as measured by a combined rating of the patients' steadiness at post-hospital employment and participation on social activities) of patients from the middle classes was higher. This was reflected in the higher rates of readmissions for the middle classes.

They further found that members of parental families had lower expectations for the patients' social behaviour than did members of conjugal families and that, over time, a greater proportion of patients returning to hospitals came from conjugal families. (Freeman & Simmons 1968b).
Turning to the wider social sphere Whatley (1968) made a study of socially unfavourable attitudes towards persons who had had a mental illness. He attempted to identify the specific conditions under which rejection was most severe. He found that as long as a social distance could be maintained, attitudes towards ex-patients were not as unfavourable as he thought were commonly believed. If contact with the ex-patient remained impersonal, community attitudes were relatively neutral.

These studies serve to illustrate some of the attitudes to the mental patient. It would follow that these attitudes would be reflected in the ways in which people behave towards and respond to the mental patient and the ways in which the schizophrenic in turn responds to them. As yet, no data exists to support this hypothesis.

2.3. IMPLICATIONS OF THE ABOVE FACTORS FOR SOCIAL SKILL

One of the main difficulties in interpreting the literature on schizophrenia is that schizophrenia may best be understood as a process, yet most of the studies are cross-sectional in design, taking schizophrenics at a moment in time and all too often giving very little information about the subjects' degree of pathology, chronicity, symptomatic status etc. at the time of testing. The following is an attempt to interpret the relevant schizophrenic literature in relation to the social skills model of Argyle & Kendon, but bearing in mind the limitations mentioned above.

The social skills model was presented in terms of a cycle consisting of goals, perception, translation, motor behaviour and feedback. It was suggested in Chapter 1 that two further categories be added to the model - cognitive schema and social knowledge. It is suggested in this section that:

1. The pre-schizophrenic individual may never have acquired adequate social skills.

2. His social skills may be impaired by factors directly associated with the underlying pathology of schizophrenia.

3. He may be left with, or develop, a chronic impairment of social skill.
2.3.1. IMPAIRED ACQUISITION OF SOCIAL SKILL
The social skills model makes the assumption that skills are learned in a variety of ways: by instruction, by reinforcement, by observation and imitation and by exposure to a wide range of situations and models, such as parents, siblings, relatives and peers (Trower, Bryant & Argyle 1978). The schizophrenic, however, either as a result of factors relating to schizophrenia disorder itself because of factors in the environment, or a combination of the two, may never have learned the skills necessary for effective social interaction.

Where the schizophrenia is of a 'process' type characterized by a long history of psychiatric impairment and social withdrawal (possibly in response to problems of arousal - see sections 2.2.1.3. and 2.2.6.), the schizophrenic may have exposed himself to only a limited range of social situations and models, insufficient to enable him to cope adequately in adult life. In addition, if, as the learning theorists suggest, schizophrenics differ from normals in their responses to reinforcement (section 2.2.5.) then this may further interfere with the learning of appropriate social behaviour.

Environmental factors are also important in the acquisition of social skill and studies of communication deviance in schizophrenia (see section 2.2.7.1.) have provided information about the ways in which parents of schizophrenics communicate in individual test situations and as members of a family group. Although these studies were conducted after the schizophrenia had manifested itself and were not related to behaviours considered to be important in the teaching of social skill(such as instruction and reinforcement) it could be argued that communication deviance such as amorphous attention may generalize to these areas resulting in the pre-schizophrenic child not receiving sufficiently clear instructions or reinforcement from the parents. Furthermore, as parents act as important models of social behaviour it is to be assumed that a certain amount of communication deviance might be learned by the pre-schizophrenic in this way.
The schizophrenic individual therefore may never have developed a sufficient range of skills necessary for effective social interaction or may have acquired deviant forms of social behaviour as a result of particular communication patterns within his family.

2.3.2. INTERRUPTION OF THE SOCIAL SKILL BY THE UNDERLYING PATHOLOGY OF SCHIZOPHRENIA

Argyle & Kendon (1967) conceived their model of social skill in terms of goals, perception, translation, motor responses and feedback. It was suggested in sections 1.6.1. and 1.6.2. that this model should be expanded to include the individual's cognitive schema and his social knowledge. This section explores the way in which this social skill process may be impaired by the underlying pathology of schizophrenia and looks specifically at the relationship between cognitive defects and social skill in schizophrenia. Much of the research on cognitive functioning has been concerned with small discrete units of behaviour and has been conducted under experimental conditions in laboratory settings. It is therefore with caution that the results of such studies are generalized (in this section) to the wider and more complex area of social interaction.

2.3.2.1. COGNITIVE SCHEMA AND SCHIZOPHRENIA

It has been suggested (section 1.6.1.) that the individual, on entering or engaging in a situation will have certain cognitions relating to himself, others in the situation and the type of situation itself. There are numerous studies examining the concept of thought disorder in schizophrenia, (see section 2.2.1.2.) and much of this work may be of relevance in exploring the way in which schizophrenics cognitively construe social interactions. It has been suggested that the schizophrenic is unable to conserve conceptual boundaries (Cameron, 1964), that he suffers from an inability to maintain a cognitive set or readiness to respond (Shakow 1962, 1974) and that his thought processes may be disturbed by irrelevant thoughts and associations. McGhie & Chapman (1961) state that if the 'spotlight' of attention is too narrow then insufficient information, memories and associations are recalled, if too broad, there may be overinclusion (section 2.2.1.2.). It is therefore possible, that the schizophrenic's cognitive schema in relation to specific situations, himself and others in the situation may be distorted or disturbed by the
intrusion of thoughts not relevant to the situation or the absence or scarcity of relevant thoughts. It may also be the case that the schizophrenic who has a long history of social impairment may have extremely negative self-cognitions and cognitions relating to specific situations in which he has encountered difficulty.

2.3.2.2. SOCIAL KNOWLEDGE AND SCHIZOPHRENIA

It has been proposed (section 1.6.2.) that the individual brings to bear on the situation his social knowledge which would include a knowledge of the meaning of various response cues and a knowledge of the particular norms which operate in situations. It is reasonable to suppose that observation and exposure to a range of situations and models, instruction and reinforcement are important in the acquisition of such knowledge. As discussed above, the process schizophrenic is characterized by a history of social impairment and withdrawal (see section 2.2.6.) and may therefore never have had the social opportunities to gain adequate knowledge of this sort. The schizophrenic may also have grown up with parents who exhibit deviant communication (see section 2.2.7.) and have been unable to act as adequate models or to provide the necessary instruction in this kind of knowledge for their pre-schizophrenic child.

We also learn which behaviours are appropriate or acceptable in a given situation as a result of the reinforcement we receive. Yet schizophrenics have been shown to respond differently from non-schizophrenics in experimental situations. If such differences occur in 'real' situations these may influence his knowledge of what constitutes appropriate behaviour in the situation.

However, although the process schizophrenic is likely to be disadvantaged by his lack of social knowledge, it must be assumed that the reactive schizophrenic (with relatively good pre-morbid social functioning) in spite of possible faulty communication from his parents, would have gained sufficient social knowledge for effective social interaction.

2.3.2.3. GOALS AND SCHIZOPHRENIA

Argyle (section 1.6.3.) discusses the role of goals in social interaction (for example, to make friends, to persuade, to extract and give information) and the way in which they provide outlets for basic needs such
as affiliation and achievement. He suggests that goals are hierarchically organized, the longer sequences of behaviour controlled by plans, which are conscious and may be expressed in words, the shorter sequences habitual and mainly unconscious. If the schizophrenic's verbal and non-verbal behaviour is disturbed by the underlying pathology of the illness, it follows that the habitual sequences of behaviour or 'social routines' (Trower, Bryant & Argyle 1978) may have been interrupted or lost so that the behaviour requires the same sort of conscious planning as the longer sequences. This might account for the longer pauses found at the planning stage in schizophrenic speech. It may be not so much, or not only, that the schizophrenic's cognitive process which operate at the planning stage are slower than non-schizophrenic's, but that he actually has to think about the situation more than the non-schizophrenic, who has whole sequences of 'social routines' in his behavioural repertoire. This may also lead the schizophrenic to avoid situations which may have in the past, been routine.

The apparent lack of social motivation and aversion to social stimuli (section 2.2.3.) may also be associated with the way in which the schizophrenic responds to reinforcement, wishing to avoid what he perceives as noxious stimuli (which might be in the form of criticism) and being less responsive than non-schizophrenics to praise. The schizophrenic may therefore limit or inhibit his goals for social interaction and try (more than non-schizophrenics) to avoid or extricate himself from potentially negative situations in an attempt to reduce the noxious stimuli and also to avoid the increase in arousal which generally accompanies such situations. The situation may be further compounded by the schizophrenic's possible negative cognitions about himself and others and by a history of poor and unrewarding social functioning.

Although there is little evidence in the research literature on longer term plans, it might be assumed that, over time also, goals might be suppressed or extinguished because of a history of failure or unrewarding consequences. Creer & Wing (1974), however, do report, in their sample of schizophrenics living in the community, the need for, and often abortive attempts at, friendship.
2.3.2.4. SOCIAL PERCEPTION AND SCHIZOPHRENIA
Argyle & Kendon (1967) discuss the importance of perception in social interaction. Social perception is highly selective and the perceptual field extremely complex. What the individual attends to will depend on a number of factors including his goals in the situation and what he knows of the other people in the interaction.

The schizophrenic may be disadvantaged in this respect from the start. It has been seen (section 2.2.1.1.) how, even if he is not suffering from gross perceptual disturbances such as hallucinations, he may have other visual and auditory abnormalities. His sense of environmental stability may be disturbed due to his difficulties with size estimation, he may hear things less well or differently (due to functioning over a narrower range of stimulus intensities), and he may have difficulty in discriminating both visual and auditory 'signals' from 'noise' in the environment. He may also be less able than non-schizophrenics to identify correctly emotion in others and in instances where there is a mismatch between the content of speech and the tone of voice, may put undue weighting on the verbal content.

Closely, and possibly causally related to perceptual abnormalities are the difficulties schizophrenics experience with attention (see section 2.2.1.2.), that is, the inability to attend selectively leading to a flood of stimuli, difficulty in concentrating, increased attention to irrelevant details, difficulty in decoding verbal messages, and the intrusion of autistic thoughts. He may be, to use Broadbent's model, unable to 'filter out' the irrelevant details of the situation resulting in 'omissions' - the temporary non-processing of information and the inability to maintain a 'major set' or state of readiness to respond.

It is now possible to understand the schizophrenic's frequent aversion to, even terror of social situations in which he is overwhelmed and at the mercy of unprocessed stimuli to which he is forced to respond.

2.3.2.5. TRANSLATION AND SCHIZOPHRENIA
Perceptions, according to this model are translated into performances, and this stage is purely cognitive and involves problem-solving and decision-making processes. At this stage, the individual 'weighs up' the situation and decides which course of action he will take.
Perceptual and attentional deficits in social situations must inevitably lead to inaccurate interpretation of these situations. This was neatly demonstrated by the study of Senf, Huston & Cohen (1956, see section 2.2.4.) and experiments using the 'Cloze' procedure on decoding verbal messages (see section 2.2.2.1.).

At this stage, the individual's thoughts may be so disordered as to make any problem-solving or decision-making process difficult. Indeed Platt, Spivack & Siegal (see section 2.2.1.2.) conducting a series of studies on interpersonal problem solving found that schizophrenic patients were less able than non-schizophrenics to generate alternative strategies in response to problem situations. Alternatively, the schizophrenic may decide to respond in the light of his 'solution' to the situation, with behaviour appropriate to his inaccurate perceptions and interpretation. This could take the form of seemingly bizarre behaviour, or escape from the situation.

At the translation stage the adequately skilled individual would bring to bear on the situation his social knowledge of the 'norms' of the situation and have some idea of which behaviours would or would not be appropriate in the situation (even if he decides to ignore or contravene the prevailing norms). The research literature does not provide us with any information or insights into this area in relation to schizophrenia.

2.3.2.6. **BEHAVIOURAL RESPONSE AND SCHIZOPHRENIA**

Argyle states that a repertoire of skilled behavioural responses is required so that the Translation Stage can be implemented. These responses are hierarchically organized - large units (such as being interviewed) being composed of smaller units, verbal and non-verbal, like asking questions or nodding the head.

Disturbances in the non-verbal behaviour of schizophrenics may be the result of biochemical processes (see section 2.2.3.1.), the side effects of medication (see section 2.2.3.2.) or a combination of both of these. These disturbances may be involuntary, and outside the control of the individual. Studies in which schizophrenics differ from non-schizophrenics on specific aspects of non-verbal behaviour have been cited in section 2.2.3.3. As noted there, the schizophrenic may engage in less eye contact than
non-schizophrenics particularly if the topic of conversation is of a personal nature and may show a paucity of facial expression, smile less in some situations and show facial characteristics of 'flight' demonstrated by mouth comes back, lips in, licking lips and swallowing and also small mouth, chin in and crouching posture. His movements may be 'out of cycle', his tone of voice monotonous and he may engage in self-touching behaviour.

Verbal behaviour in schizophrenia has long attracted the attention of theorists and researchers (section 2.2.2.). The content of the schizophrenic's speech may be extremely disturbed although grammatically correct, there may be longer pauses before and during speech, and he may appear to be less willing to speak and retain the floor, when the topic is of a personal nature. Somewhat paradoxically, however, his inability to 'generalize' may lead him to direct the conversation towards more personal topics, and he may appear to have difficulty in understanding the needs of the listener.

A number of explanations have been proposed to account for the schizophrenic's behavioural response to stimuli. Salzinger's (1973) immediacy hypothesis was stated as the tendency for schizophrenic behaviour to be controlled by those stimuli most immediate in the environment. This would indicate, according to this model, that the schizophrenic eliminates the translation stage and responds according to his perception (or misperception) of the situation.

Broen & Storms' (1961) theory of collapsed response hierarchies states that the schizophrenic has a basically normal response hierarchy, but because of either increased, or reduced arousal, the probability of inappropriate responses is increased. If this theory (which was conceptualized and has been tested within the framework of experimental psychology) were applied to the far more complex area of social response, then it would be assumed that the schizophrenic individual had a 'normal' repertoire of responses, but a subordinate and inappropriate response may result in a given situation.

Finally, Helmsley (1977. See section 2.2.1.2.) has suggested a number of ways in which the schizophrenic might adapt to information overload and how those methods of adjustment might relate to the behaviour of the
schizophrenic. He may show retardation, associated with the 'Queuing' mechanism, his speech may be incoherent or he may respond inappropriately; this may be related to 'errors' or intrusion of associated responses (as in Broen & Storms' theory of collapsed response hierarchies) or he may show symptoms of social withdrawal and 'escape' or avoid situations of high information load.

2.3.2.7. FEEDBACK & CORRECTIVE ACTION AND SCHIZOPHRENIA

Feedback occurs, according to Trower, Bryant & Argyle (1978), during ongoing activity and completes the cycle. It will involve an individual attending to and interpreting the meaning of the responses of the other(s) in a situation, and also checking out the appropriateness of own behaviour in relation to the messages wished to convey (goal). He can then make the necessary 'translation' to his next move. If the individual misperceives or misinterprets at this stage, his subsequent response is less likely to be relevant to the situation. The schizophrenic, as argued above, may suffer from disturbances in perception and also from the intrusion of apparently unrelated or irrelevant thoughts. He may therefore get involved in a vicious circle of progressively inappropriate responses and bizarre or unacceptable social behaviour.

2.3.3. CHRONIC IMPAIRMENT OF SOCIAL SKILL

In the previous section the way in which the literature on schizophrenia may be interpreted in relation to the social skill process was discussed. Much of the research however has been conducted with in-patients, whose symptomatic status is rarely discussed in detail. It is often unclear whether the variables studied are characteristics of schizophrenia at the acute stage only, or whether they persist over time. Another problem in interpreting the results is that many studies of chronic hospitalized patients fail to control for the effects of a total environment which in itself may influence the results.

In terms of chronic impairment of social skill it is difficult to predict from the literature the extent to which deficits generally associated with the more acute phases will persist over time. The schizophrenic, however, may be impaired by a number of other factors. If his premorbid functioning was poor, it is unlikely to improve after the onset of the condition. If, as it has been suggested (section 2.2.5.), the schizophrenic has a tendency
to respond to reinforcement differently from non-schizophrenics this may interfere with the learning process, should he need to relearn skills as a result of disruption by the disorder (as suggested by Wallace (1984)). For example, it may be that negative comments or suggestions may be construed as criticism and therefore aversive. Indeed the results of the work on expressed emotion (section 2.2.7.1.) have shown a clear association between criticism and relapse.

In addition to learning deficits which may be associated with the schizophrenic disorder itself, the schizophrenic may return to or live in a home environment in which patterns of communication are deviant, and his relatives may provide poor models for social behaviour as well as engaging in deviant forms of communication (see section 2.2.7.1.). His relatives may be tolerant of his deviant behaviour, increasing the likelihood of his readmission to hospital.

The schizophrenic may also be expected to interact in a wider social environment - to go to work, visit local shops, interact with friends of the family. He may find himself in interactions with people who, although tolerant of mental illness 'at a distance' are uncomfortable when confronted with the reality. This double standard of apparent acceptance and actual rejection may further compound his difficulties (see section 2.2.7.2.).

Finally, where there is a continuous history of social failure, the schizophrenic may develop very negative self-cognitions and cognitions relating to others which again, may not help him to interact successfully with others.

In the longer term then, the schizophrenic may be suffering from social skill deficits incurred at the premorbid stage and from deficits directly associated with the schizophrenic disorder itself; deficits which may persist over time and be maintained by factors in his social environment.

2.4. HYPOTHESES TO BE TESTED AND QUESTIONS TO BE EXPLORED

This study is concerned with the examination of the longer-term deficits in social skill in non-hospitalized schizophrenics. The subjects chosen for the study were therefore remitted schizophrenics living in the community.
The study is mainly concerned with aspects of the social skill process described in Chapter 1 particularly self cognition, cognitions relating to specific difficult situations, short-term and longer-term social goals, social perception and social behaviour. The other area which is considered to be relevant to this study (although not directly related to the social skill model) is that of the social environment of the subjects in terms of the range and frequency of their social contacts and activities. There have been a number of studies which have examined this aspect of social functioning and these have been well summarized by Wallace (1984). The evidence of these studies, he states, suggests that schizophrenic patients, irrespective of the chronicity of their illness, interact at a rate lower than that of non-schizophrenic individuals, although the results of several studies comparing schizophrenics of different levels of symptomatology have found that the rate of interaction varies with the severity of the illness - the longer the duration of the illness, the greater the impairment. Most of the studies on which these conclusions are based, however, were conducted with in-patients, rather than those interacting in the community. An examination of the schizophrenics' social environment and contacts is included in this study not only to enable comparisons to be made between schizophrenics and non-schizophrenics, but also to establish whether or not social opportunities exist in which the schizophrenic can put into practice new skills learned in social skills training.

The hypotheses to be tested are therefore that:

1. There will be differences between schizophrenics and non-schizophrenics in their non-verbal and verbal behaviour.

2. There will be differences between schizophrenics and non-schizophrenics in their self cognitions related to social behaviour.

3. There will be differences between schizophrenics and non-schizophrenics in the way in which they formulate their goals in specific situations.

4. Schizophrenics will be found to be quite content with their current social life and ability to get on with people. Thus they will not have long-term goals of a social nature.
5. There will be differences between schizophrenics and non-schizophrenics in their perceptions of social situations.

6. There will be differences between schizophrenics and non-schizophrenics in the range and frequency of social contacts.

This study also considers a number of research questions. These are more general points on which the literature does not suggest specific hypotheses.

How accurate are the schizophrenic's self-cognitions in relation to social functioning?

In what ways do schizophrenics cognitively construe situations which they identify as difficult?

Is there a discrepancy between the schizophrenics' social goals and those of his relative for him?

Is there an association between the personal characteristics of the sample (such as intelligence, social class or chronicity) and performance on tests of social skill?

2.5. SUMMARY & CONCLUSIONS

This chapter has examined those areas of research and theory related to schizophrenia (psychological, physiological and social) which seem most relevant to the social behaviour of the schizophrenic. It has been suggested that impaired cognitive functioning may distort the schizophrenic's cognitive schema, his perception of the situation, his ability to translate his perceptions into behavioural action and his selection of behavioural response. The schizophrenic has also been shown to avoid social stimuli, possibly in an attempt to reduce and lower his level of arousal by reducing the amount of incoming stimuli. It has been argued that this is likely to affect the schizophrenic's goals, particularly short term, in the situation. The schizophrenic's motor behaviour will also probably be disturbed and this may be further compounded by the effects of medication reducing the likelihood of a behavioural response appropriate to the situation.
Social factors have been shown to be particularly relevant premorbidly and also in the longer term when the schizophrenic returns to his family or the community. The 'process' schizophrenic may never have been exposed to a sufficiently wide variety of social situations in which to learn appropriate skills, as a result of which he would be unlikely to be able to function effectively in the longer term. The schizophrenic may also have been brought up in a family of deviant communicators, who may have provided poor models, or given inappropriate instruction to their offspring. Finally, the schizophrenic may return to, and remain in, a critical family environment or a hostile community.

It has therefore been demonstrated that the schizophrenic may suffer from deficits in social skills before, during, and following a schizophrenic episode, both as a direct result of the disorder itself and as a result of factors in the environment. A more precise examination of these deficits is the subject of this study.
CHAPTER 3
THE ASSESSMENT OF SOCIAL SKILL

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3.5. SUMMARY & CONCLUSIONS
CHAPTER 3
ASSESSMENT OF SOCIAL SKILL

3.1. INTRODUCTION
This chapter examines the way in which other researchers have assessed different aspects of social skill, discusses how their procedures relate to the theoretical orientation of the research, and identifies some of the problems and areas of weakness in these procedures. This provides the context in which the decisions about choice and development of assessment procedures for this research were made. These are described in section 4.4.

Most of the research in social skill has been carried out from the perspective of models of impairment of social skill, i.e. that skills are impaired by anxiety, by limited behavioural repertoire or by some aspect of cognition. Procedures have therefore been developed to measure anxiety, behaviour and cognitions. Instruments however do not seem to have been developed from the perspective of any comprehensive model of social functioning (rather than skill impairment) and it is possibly for this reason that the procedures, particularly when it comes to the complex area of cognitive functioning, are few in number and often only tenuously related to theory. This chapter looks at assessment of the three broad areas of anxiety, behaviour and cognitions. The instruments designed to assess cognitions will be discussed in relation to the cognitive processes suggested by the conceptual framework of the expanded social skills model proposed in chapter 1.

3.2. ASSESSMENT OF ANXIETY
The anxiety reduction model of social skill training makes the assumption that the individual's social skills are inhibited by anxiety. Presumably then it would be expected that the individual lacking in social skill would have a high level of arousal which would be reduced by behavioural training. The early researchers working within this paradigm, tended to employ a case-history approach and relied on clinical judgement of social skill rather than systematic well-validated procedures to assess change (e.g. Wolpe 1970).
However, a number of questionnaires were designed to measure social anxiety across a broad range of situations. One of the most widely used is the Social Avoidance and Distress Scale (SAD) (Watson & Friend, 1969) developed to measure a tendency to avoid and experience negative feelings of anxiety and fear in interpersonal situations. The questionnaire contains 28 items to be answered 'true' or 'false' e.g. 'I try to avoid talking to people unless I know them well'. The SAD is most useful for measuring the general degree of social anxiety and is often used in outcome studies. The items are too general to provide sufficiently specific information necessary to the planning of treatment. The scale was standardized with a population of male and female undergraduates (although it does seem relevant to other adult populations) and research on the reliability and validity of this measure has provided some support for the scale (e.g. Hersen & Bellack, 1977).

The Fear of Negative Evaluation (FNE) scale was developed by Watson & Friend in conjunction with the SAD. It is a 30 item true-false inventory designed to assess anxiety and fear of receiving negative evaluations from others, e.g. 'I am usually worried about what kind of impression I make.' It was developed using the same standardization sample as the SAD.

Other social anxiety inventories include a modified version of the S-R Inventory of Anxiousness (Arkowitz, Lichenstein, McGovern & Hines, 1975) and the Social Anxiety Inventory (SAI) (Richardson & Tasto, 1976). The SAI consists of 100 items and is of particular interest as it lists situations rather than behaviours. As such it is of potential value in the training of individuals.

The above are examples of the most widely used questionnaires. Most questionnaires of social anxiety have been developed for research purposes with college students, although some are of relevance to other populations. Such questionnaires are generally used as part of a battery of tests in studies of social skill or assertion.

There are limitations to the use of any self-report questionnaire, and those concerned with social anxiety are no exception. All self-report measures make the assumption that the respondent is willing and able to
respond with reasonable accuracy about his feelings, behaviour, etc. Responses may be distorted by a number of factors, e.g. demand characteristics (particularly post-training), response bias, impression management and faking. Because the scores on questionnaires are summed, these questionnaires cannot provide information on how the individual responds in specific situations, but they can provide a general overview of the area of functioning in question. They are economical of time in that the researcher or clinician in some cases need not be present while they are being completed, and they provide a relatively easily attainable source of quantifiable data on changes in the individual's self-report of his functioning over time and enable comparisons to be made between different populations. Self-report questionnaires therefore can be useful but have limitations.

A second approach to assessing social anxiety is to measure the level of physiological arousal in social situations. Comparatively few studies on social skill have done this (e.g. Borkovec, Stone, O'Brien & Kaloupek 1974, Twentyman & McFall 1975). There has, however appeared to be no consistent relationship between autonomic arousal and social skill. Eisler (1976) pointed out that it is possible to behave outwardly in a highly skilled manner under conditions of high arousal, although Bellack (1979) argues that even where there is no apparent skill deficit, high levels of anxiety could cause interpersonal dysfunction. Bellack also suggests that physiological assessment could also identify high levels of anxiety which co-exist with skill deficits.

3.3. ASSESSMENT OF BEHAVIOURAL ASPECTS OF SOCIAL SKILL

The response acquisition model of social skill explains deficits in terms of the absence of specific behaviours from the individual's response repertoire. The emphasis in this model is on overt, observable verbal, non verbal and paralinguistic components of the individual's repertoire of social behaviours. Assessment of the behavioural response has also, of course, been made from the perspective of broader-based models of social skill (e.g. Bryant & Trower 1974) in which the response is considered as one component of the social skill process.
A number of methods have been developed for collecting information about the individual's specific behavioural responses. These have included observing him in his own setting (naturalistic observation *in vivo*), in situations in the subject's own environment contrived for the purpose of research (with or without the subject's consent) and in situations set up in a laboratory which have been standardized or semi-standardized (role-play tests). The subject's behaviour is generally either observed or audio or video taped and quantitative ratings made in terms of the duration and frequency of specific behaviours and qualitative ratings made of more general subjective measures such as 'friendliness' and 'overall skill' or a combination of both.

In addition to the assessment of specific behaviours by observation, questionnaires and behavioural interviews can provide more general information on the subject's social behaviour.

3.3.1. BEHAVIOURAL OBSERVATION

(a) Naturalistic Observations *in vivo*

Arguably, the most desirable way of assessing behaviour is in the real-life setting. 'Too often the investigator has preconceptions of what behaviour 'ought' to occur, rather than a knowledge of what actually occurs' (Hutt & Hutt 1970, pp.26). Yet such ethological methodologies are sometimes seen as time consuming, difficult and impractical, and ethically questionable (Boice 1982). 'Intimate and private interactions generally are not privy to outside observers (sic), and many public interactions (e.g. assertion situations, meeting a stranger) occur too infrequently and unpredictably to permit easy access'. (Bellack, 1979, p. 87). Boice, however argues that although field study does take time, it takes no longer than properly conducted direct behavioural research in the laboratory. He also suggests that naturalistic observation need not extend beyond public behaviours and is probably less beset with ethical problems than its laboratory counterpart.

In spite of the many apparent advantages afforded by *in vivo* observation, it has rarely been employed in the domain of social skills and reports in the social skills literature have mostly been carried out in hospital settings. For example, Gutride & Goldstein (1973) observed patients during
meal times and Shepherd (1977, 1978) rated specific behaviours of
day-hospital patients whilst they interacted in small groups which formed
part of the therapeutic regime of the unit. Naturalistic observation in
hospital settings however, is most relevant in total institutions when the
patient is likely to be hospitalized for some considerable period and
hospital forms his home environment and less so in day hospitals or acute
units where it is questionable whether the patient's behaviour accurately
represents his behaviour in his normal environment.

Clearly there is great potential in this type of assessment despite its
limitations.

(b) Behavioural observation in contrived situations

Because of the problems of sampling specific types of interactions in vivo,
some researchers have involved their subjects in contrived interactions.
For example, King, Liberman, Roberts & Bryan (1977) had chronic patients
escorted into the community by a trained observer who instructed them to
carry out a series of encounters which required assertion such as inviting
friends round and obtaining a job application form. Bellack (1979) has
argued that it is unlikely that such forced responses would represent the
subject's typical style of interaction, but it might give some idea of
response capability.

In other studies, situations have been contrived and the subjects observed
without their knowledge. For example, Hersen, Eisler & Miller (1974) in a
study designed to assess the generalization of training in assertiveness
across situations, deliberately gave their psychiatric subjects fewer shop
tokens on completion of training than they had previously promised. They
then observed and rated the response. Gutride, Goldstein & Hunter (1973)
used a trained accomplice to engage the subjects (individually) in
conversation and observed the interaction through a one-way mirror. In
another study involving the 'deception' of the subject, Wallace, Teigen,
Liberman & Baker (1973) had staff enact scenes which, prior to training,
had led to aggressive behaviour in their subject, a 22 year old handicapped
male. His responses to these scenes were observed and subsequently rated.
Other studies using contrived situations include McFall & Marston's (1970)
in which subjects were rung up by a confederate posing as a high-pressure
salesman and Green, Burkhardt & Harrison's (1979) in which each subject was
approached by a confederate ostensibly soliciting help but following a
preprogrammed series of seven progressively more unreasonable requests.
These contrived situations were devised for particular studies and vary widely and for this reason it is difficult to assess their usefulness. Studies which involve the deception of the subject also give rise to serious ethical problems. Bellack (1979) suggests that future research in this area should focus on the development of empirically selected tasks and that the 'respond as if' (in that situation) approach should be compared to the deception approaches. If the former were found to be as valid, they would avoid the ethical constraints of deception and thereby be preferable.

(c) Role-play tests
Because of the difficulties and limitations of making in vivo observations, many researchers have designed structured procedures in an attempt to obtain samples of behaviour which represent various in vivo interactions. They can be roughly divided into two categories: semi standardized (which usually take the form of a conversation) and standardized (usually a series of brief 'scenes', which require a short response from the subject). Most semi-standardized and standardized procedures have been designed as outcome measures in research on social skills or assertiveness training.

(i) Semi-standardized interactions
These include conversations with confederates where prior instructions have been given to the subject, the confederate or both, to include certain behaviours in the interaction. Assessment is carried out with the subject's knowledge and is usually video taped for subsequent analysis:
For example in Marzillier Lambert & Kellett's (1976) comparative study of systematic desensitization and social skills training, the subject was required to carry on a conversation for five minutes with a confederate. The only instructions given to the subject was to initiate and maintain a conversation and to make no reference to the fact that it was being recorded. The stooge was instructed to be friendly and responsive but not to initiate any conversation. Where a protracted pause occurred she was told to ask a number of neutral questions.

An example of a more standardized and sophisticated version of this type of assessment is that devised by Trower (1980). It was designed as a social encounter with two strangers, such as might occur following an introduction at a newly joined club. There were three phases to the interactions: (i)
speaking, during which the subject was under instruction to keep the conversation going, and the female confederate to give appropriate attention feedback and support for the first half and to be silent and look down for the second half and the male to withdraw; (2) listening, during which the female stooge was under instruction to keep the conversation going and to self-disclose (using a rehearsed script) for the first half and fall silent for periods of 15 seconds during the second half, and the male stooge to remain silent; (3) assertion, during which the male partner was under instruction to question, disagree, give advice etc. to the subject. In its original form this test was designed as an outcome measure in a comparison of anxiety reduction and skills training, but as described above it was used to analyse the components and processes of socially skilled and unskilled behaviour of patients. One of the main problems of this type of procedure is in presenting the situation as 'natural' whilst at the same time maintaining the standardization (and thereby the reliability). Conversation is an interactive process and it could be extremely unnatural not to say confusing if one party is behaving in a preprogrammed fashion, varying his behaviour in what to the subject might be perceived as an arbitrary way rather than in response to the subject's interventions. On the other hand, the cross sectional design for which most of this type of assessment is designed, requires a high degree of standardization. These conflicting demands can to some extent be reconciled by careful planning and rehearsal by the confederates beforehand.

(ii) Standardized role-play tests
This type of assessment has been designed and used mainly as an outcome measure in assertion training. Typically, the subject is presented with a number of scenes by a narrator (live or audiotaped). E.g. 'You're in a crowded grocery store and in a hurry. You pick up one small item and get in line to pay for it. You're really trying to hurry because you're already late for an appointment. Then a woman with a shopping cart full of groceries cuts in line'. A female role-model then issues the actual prompt line 'You don't mind if I cut in here, do you? I'm in a hurry'. The subject's response is audio or videotaped and subsequently rated.
The above example is one of the 32 items of the BAT-R (Eisler, Hersen, Miller & Blanchard 1975), one of the most extensively used tests of this kind. Similar tests have been devised by Rehm & Marston (1968) to measure heterosocial interaction), McFall & Marston (1970), and Curran (1982). These role-play tests are highly structured and require the ability to make rapid responses as well as being able to make the necessary adjustments from one situation to another. Bellack (1983) suggested that external validity may be limited by restrictions imposed by the brief interaction and has consequently extended the enactments to two confederate prompts in order to increase realism. (Bellack, Hersen & Himmeloch 1983).

The situation chosen for this type of assessment must clearly be not only representative of the behaviour being assessed, but of relevance to the individual. Goldsmith & McFall (1975), in designing their Interpersonal Behaviour Role-Playing Test (IBRT), based the scenes to be role-played on items chosen from their Interpersonal Situations Inventory. Items on this inventory were empirically generated from the functional-analytic model proposed by Goldfried & D'Zurilla (1969). Bellack, Hersen & Himmelock (1983), in order to check with the subject the relevance of their chosen situations read a description of the situation of the subject before enacting the scenario and asked if he could imagine himself in that situation: if not, modifications were made to make it more realistic.

Rating of behavioural observation procedures
In most of the studies involving observation, ratings are made of the subject's responses, usually by independent observers. There is some conflict in the literature about the appropriate 'level' of assessment, i.e. the size of the unit of target behaviour. More behaviourally-oriented researchers tend to choose 'molecular' units as discrete behaviours such as head nods and speech duration which can be operationally defined and measured quantitatively. These variables are presumed to be the basic elements of interpersonal communications which together comprise the social skill construct (Bellack, 1979). They must clearly be related to the behaviour they are expected to predict and should be determined not on theoretical grounds but on an empirical basis (Curran, 1979). Yet it is questionable whether empirically determined information about the important components of social skill in the vast range of situations which any individual is likely to encounter could be obtained.
Another problem with the counting and timing of ratings is concerned with the appropriateness of the response. For example, A may have the same score as B on smiling, but A's smiling may be completely out of context in the interaction. Also frequency and duration measures are unidirectional whereas inappropriate behaviour can be bidirectional, e.g. voice volume can be too hard or too soft, gaze can be excessive as well as deficient (Bellack, 1983). One solution to these difficulties is the use of qualitative ratings of appropriateness of the target behaviour and the employment of qualitative bidirectional scoring systems, such as that proposed by Trower, Bryant & Argyle (1978). This system takes into account both the excesses and deficits in the target behaviours. Of course, the use of qualitative measures does reduce the objectiveness and reliability of the ratings but this may be necessary in order to make sense of quantitative ratings.

At the other end of the spectrum are 'molar' ratings. These consist of global qualitative judgements usually of overall social skill, or characteristics thought to be associated with social skill such as 'warmth'. There are problems with this kind of rating too. First, social skills are notoriously difficult to define and judgement will be influenced by a range of cultural and individual variables. So what might be perceived as socially skilled by one individual might be viewed quite differently by another. The second problem is the tendency, when making these global judgements, to view social skill as a quality of the person (i.e. a trait) rather than a judgement about an individual's behaviour in a particular situation. But even when using molecular ratings, assumptions are inevitably made about the behaviour in the laboratory situation being representative of behaviour in a wider range of situations, otherwise the ratings would be of little use. This again approaches a trait theory of social skill which is a contrary perspective to that held by most workers in the field. This is an area in social skills as yet unresolved.

Whether molar or molecular units of behaviour are chosen for rating will depend on the purpose of the assessment, as well as on the theoretical approach of the researcher. For example, molar ratings might be appropriate for the selection subjects for a particular piece of research or for the evaluation of a therapy programme whereas molecular ratings may be needed in order to design treatment programmes or to test hypotheses.
Whatever the purpose of the assessment, it is important that what is being measured is precisely defined and that it is reliably measured. This is one of the most problematic areas in the research literature. Too often studies have employed faulty or invalid measures (Bellack, 1983) and the variability in the selection and definition of target behaviours and specific measurement procedures has made comparisons between studies extremely difficult.

External validity of role-play tests
External validity refers to the extent to which observed responses during simulated interactions are an accurate and valid representation of how the patient responds in similar real-life situations. A number of studies have been conducted to evaluate the validity of role-playing with mixed results. For example, Bellack, Hersen & Turner (1978) rated the behaviour of subjects in their Behavioural Role-Play Test - Revised and also during a standard interview and a group psycho-therapy session. In general, there was a lack of correspondence between ratings in the simulated situations and ratings obtained in the more 'naturalistic' settings. This may not be altogether surprising as the role-play test was the only situation of the three which required assertive responses. It is also questionable how accurately behaviour in a clinical setting may be said to be representative of behaviour in the 'natural environment'. This negative finding seems to be constant across subject populations. In a subsequent study of behaviour of male and female college students, Bellack, Hersen & Lamparski (1979) found that for females role-play behaviour correlated only moderately with behaviour in a natural situation (an interaction with an opposite sex student who, unknown to the subjects, was an experimental accomplice). There was little relationship between behaviour in the two situations for males. Wessberg, Mariotto, Conger, Conger and Farrell (1979) however, working with high and low frequency daters, found good correspondence between two simulated situations (a pizza-parlour date and an interaction with an opposite sex confederate) and behaviour in two waiting-room situations. The most obvious difference between the simulated tests in the Wessberg study and the Behavioural Assertiveness Test which might account for the differences in results is that whilst the BAT requires the subject's responses to be assertive and relatively short, the simulated situations require the subject to engage in more sustained interactions,
possibly allowing him more time to make cognitive adjustments to the situations. Additionally, ratings of the BAT are concerned with specific behaviours, whereas in the Wessberg study only global ratings of social skills were made.

The limited evidence from these studies would suggest that behaviour in semi-standardized interactions may be more representative of the subject's behaviour in a real-life setting, but clearly more studies are needed to assess the degree of correspondence between behaviours in laboratory and in natural settings.

It is only relevant to consider external validity of role-plays if the subjects are instructed to respond 'as if' in the real-life situation. A number of studies have employed other instructions such as directing the subjects to perform as well as they can, which might be different from how they actually perform, in what they believe to be an appropriate manner or as they think skillful people respond. In these cases, the subject's behaviour in role-play would not be expected to correspond with his behaviour in the real-life situations.

Another problem related to external validity is the difference between role play and naturalistic situations with respect to the potential consequences of the subject's responses (Arkowitz, 1981). In role-play the subject knows that the consequences of his response are relatively minor whereas in real-life the consequences could be extremely significant. It may be that in the actual situation that the subject's responses would be impaired by undue anxiety, or by faulty cognitive-evaluative appraisal of the situation, in which case one could not expect that there would be much correspondence between his behaviour in role-play and his behaviour in the natural situation.

Arkowitz has suggested that, rather than providing us with an indication of how the subject actually behaves in the natural situation, role play tests may provide us with an index of the skill repertoire of the subject. This in itself could prove to be extremely valuable.
3.3.2. ASSESSMENT OF GENERAL SOCIAL FUNCTIONING BY SELF-REPORT INVENTORIES

Inventories for the assessment of social skills have been developed mostly in the context of research and are often of limited use clinically. Most rely on face-valid items and few have been developed empirically. Of those inventories which relate specifically to social behaviour (rather than, for example, anxiety) most are concerned with feelings of difficulty in the situation and frequency of occurrence. For example, Goldsmith & McFall (1975) developed an Interpersonal Situation Inventory (ISI) from the functional-analytical model proposed by Goldfried & D'Zurilla (1969). Another social situation inventory is the Social Situation Inventory of Bryant & Trower (1974). Both these inventories are appropriate for a general adult psychiatric population and both present a wide range of social situations.

3.3.3. THE BEHAVIOURAL INTERVIEW

The Behavioural Interview is undoubtedly the most frequently used assessment procedure in the clinical assessment of social skill. However, there has been very little empirical investigation of these interview procedures in relation to behavioural assessment.

The Behavioural Interview has certain features which distinguish it from more traditional interviewing. These include the greater specificity of the questions, the attempt to operationalise behaviourally the patient's constructs, and the functional analysis of problem behaviours (Arkowitz, 1981). The interview can provide information about the patient's past and current behaviour as well as providing us with a source of behavioural observations. However, the interview situation is very different from real-life social situations and therefore observational data should be treated with caution.

The interview is very rarely used as an assessment tool in research in social skill and as yet very little is known about the extent to which behavioural interviews provide reliable and valid information. Shroeder & Rakos (1983) suggest that the reason why there is so little research on the clinical behavioural interview is because of the problems of bias: that
the unstructured and responsive qualities of the interview present a serious validity problem. They suggest that the material gathered at interviews may be unrepresentative of behaviour in the natural environment for at least five reasons: (1) the unreliability of self-perception and self-report; (2) the demand characteristics of the situation; (3) interviewer bias in evaluating social skill; (4) selective attention of the interviewer; (5) the interview provides only a single sample of social behaviours. Haynes & Jensen (1979) have argued for the need for the behavioural interview to be conceptualized as an assessment instrument and subjected to the same psychometric examination of reliability and validity as other instruments. It can then hopefully prove to be a valuable tool for research purposes.

Social behaviour can therefore be assessed by a number of observational procedures, by inventories or by interview. Clearly the data collected will be different depending on the procedure used but inventories and interview data can be useful in mapping out broad areas of difficulty and observational methods for obtaining more detailed and specific information. All the observational procedures have limitations: problems of access with in vivo observation, ethical problems with contrived situations, problems of validity with role-play situations, difficulties of sampling peoples' actual behaviour in their own environment, assessing generalization of training in contrived situations, and inter- and intra-subject comparability of results with role-played procedures.

No one procedure is ideal and the final choice will probably depend on a combination of practical considerations and the purpose for which it is being used. For example, a standardized procedure would be more appropriate when using a cross-sectional experimental design and in vivo observation in case history studies.

3.4. ASSESSMENT OF THE COGNITIVE ASPECTS OF SOCIAL SKILL

The development or adaption of interactionist cognitive behavioural models of social skill such as those proposed by Argyle & Kendon (1968) and Trower (1982) has necessitated the design of new procedures to assess the cognitive aspects of social skill. Workers in the field have also adopted and adapted existing procedures developed within the context of cognitive therapy.
Much of the research in this area has been conducted from the perspective of a cognitive impairment model of social skill, i.e. that social skills are inhibited or impaired by some aspect of cognition such as expectation of negative consequences (Fiedler & Beach 1978), the way in which the individual cognitively construes situations (Forgas, 1983), perceptions of assertiveness (Morrison, Bellack & Hersen (1979), cited in Morrison & Bellack, 1981) (see section 1.4.). A number of instruments, which are for the most part unrelated to each other or to any comprehensive model of social skill, have been developed usually to assess the area of cognition in question in relation to social skill. Because the current research is conducted from the perspective of the social skill model of Argyle & Kendon (1967), these procedures and those of relevance from other areas of therapy will be discussed in relation to the cognitive aspects of that model. This model suggests that there is a social skills cycle: the individual enters the situation with his own goals, he then perceives what is happening in the situation (perception stage), and by weighing up alternative responses, selects the one appropriate to his goals and to the situation (transition stage) and subsequently acts. He then monitors his actions in the light of his perceptions of the response of the other. He then proceeds to his next response. The cognitive aspects of this model therefore are the formulated goal, social perception, translation (problem solving) and monitoring. It was suggested in section 1.6 that Argyle & Kendon's model could be expanded to include two further categories of cognitive functioning which may be of relevance. These are concerned with the individual's cognitive schema (section 1.6.1.) or set of representations which the individual may have, and his social knowledge (section 1.6.2.) which includes both a knowledge of the meaning of response cues and a knowledge of the social norms which operate in various situations. Procedures for the assessment of these further categories will also be discussed.

3.4.1. ASSESSMENT OF COGNITIVE SCHEMA

It was suggested in section 1.6.1. that on entering a particular situation, the individual will have a cognitive schema or set of representations relating to himself, the others in the situation, and the situation itself, and this will influence all aspects of the social skill process.

This is an area which is beginning to interest social skill researchers and a number of procedures have been developed to assess different aspects of the individual's cognitive schema.
There is also a sizeable literature on cognitive assessment (e.g. Hollan & Beamis, 1981) and some of the procedures developed in that context are of relevance to social skill assessment.

Cognitive assessment procedures developed within the framework of cognitive therapy usually involve self-report, and a number of questionnaires have been developed for this purpose. Some are designed to assess a limited number of specific thoughts either about the self generally, over time, e.g. The Hopelessness Questionnaire (Beck, Weissman, Lester & Trexter, 1974) or with reference to specific situations, e.g. The Assertive Self-statement Inventory (Schwartz & Gottman, 1976). Subjects are typically supplied with specific thoughts which they then have to rate on dimensions such as frequency of occurrence. Other instruments are more open-ended, and require the subject to report on his actual thoughts in response either to situations which occur in their real life (e.g. the Monitoring Dysfunctional Thought Record (Beck, Rush, Shaw & Emery, 1979) or to imagined scenes presented by the researcher/clinician. Procedures where imagined scenes are used or where the thoughts are presented in relation to specific situations will, of course, only be of any value if the situations are relevant to those which the subject is likely to encounter outside the clinical situation.

Relatively little is known about the psychometric properties of the type of cognitive assessment scales discussed above (Hollan & Beamis 1981) and there are a number of threats to the validity of such instruments. Cognitive assessment necessarily involves self-report of processes which are only directly observable by the individual experiencing the phenomena. How can it then be known whether such reports are accurate, i.e. internally valid? Cognitions may also change over time, or depending on the situation in which the assessment takes place. In the safety of a consulting room or laboratory an anxiety-provoking situation may not appear as dangerous as when the subject is actually in the situations, and it is reasonable to suppose that different cognitions may be elicited if the assessment were to take place in vivo. The external validity of cognitive assessment procedures may therefore be questionable. There is, however, an increasing interest in the reliability and validity of such measures, and this type of procedure may prove to be useful in the assessment of social skill.
Another approach to assessing cognitions has been to look at the way in which people cognitively represent situations or interpersonal episodes (e.g. Furnham 1981, Rudi, Merluzzi & Henahan 1982) using multidimensional-scaling. By this method, Forgas (1983) suggests that it should be possible to assess empirically a particular individual's episode cognitive style, and to identify specific episodes within an episode domain which are sources of difficulty.

So far, ways of assessing self-cognitions and cognitions in relation to situations have been discussed. Considerably less attention however, has been paid in the literature to assessing cognitions about other people in social situations. Eisler, Frederiksen & Peterson (1978) designed their Generalized Expectations of Others Questionnaire for this purpose. It consists of only five items and subjects (using a 10-point scale) are asked to estimate on a daily basis how often they expect various reactions from others with whom they interact, e.g. 'How often do you expect (others) will take advantage of you?' 'How often do you expect (others) to be pleasant and understanding?' No instruments seem to have been developed to date to gain access to generalized cognitions about specific categories of people, e.g. male/female, authority/peers, older/younger.

Therefore although assessment of the cognitive components of social skill is a comparatively recent development, some of the work on assessment for cognitive therapy is of relevance to social skill. Meanwhile new and interesting work is being carried out on developing methods for looking at how individuals cognitively construe situations, and this has considerable potential value in the assessment of social skill.

3.4.2. ASSESSMENT OF SOCIAL KNOWLEDGE
(a) A knowledge of the meaning of response cues
In section 1.6.2. it was suggested that a knowledge of the meaning of various response cues was essential to the social skill process. A knowledge, however, presupposes some objective criteria by which a particular phenomenon can be judged or empirically verified. But as we have seen in section 1.6.1. individuals' judgements of the meaning of certain response cues varies a great deal. Judgements of this kind, however are not made solely on the basis of a 'knowledge' of response cues
but may be mediated by a number of factors such as mood, attributional style or past experience. Judgements are also generally made not on the basis of single cues but on a combination of cues over time. Therefore the interpretation could be made on the basis of attention paid to one particular cue at the expense of others. It may be, however, that even individuals who interpret the same cue or set of cues in different ways in a particular situation could agree on the underlying criteria for making that judgement.

Whilst the 'meaning of social cues' is often mentioned in the social skill literature and there have been some attempts to assess social perception, no empirical attempt to assess this aspect of social knowledge in relation to social skill could be found.

(b) A knowledge of social norms
This also presents problems in terms of assessment. If, as Garfinkel (1967) has suggested, the individual whilst being responsive to the background expectancies (norms) of the situation is at a loss to describe them, is it then possible to make an assessment of the individual's knowledge of such elusive phenomena? Possibly for many situations it is not. There are however more formal, structured situations, e.g. between manager and worker where the range of acceptable behaviours is probably narrower than in less formal settings and for these types of situations it should be possible to identify and therefore assess the individual's knowledge of the norms or rules operating. There is increasing interest in the examination and analysis of situations (e.g. Argyle, Furnham & Graham 1981) but this has not as yet generated any empirical work in the area of social skill. Bellack, Hersen & Turner (1979) did make an attempt to assess their subjects' knowledge of appropriate behaviour in a number of situations. However by asking the question 'Tell me what you think a person should say or do in that situation' it is unlikely that they gained access to their subjects' knowledge of the range of behaviours appropriate in the situation although such a question might provide useful information about the individual's general cognitions about such situations.

3.4.3. ASSESSMENT OF GOALS
Whilst social goals in situations have been referred to in the literature both in relation to the concept of social skill and to training (e.g. Bryant, Trower & Argyle) no procedures have been developed to date for
their assessment. Short-term goals usually refer to the individual's desired outcome in a specific situation, yet as discussed in Section 1.6.3. in most behavioural assessment tests, the goal is either supplied (e.g. you really want to get home on time tonight) or assumed or implicit in the situation as presented.

Long-term goals have also been neglected in the research literature, i.e. what the individual hopes to achieve in relation to others over a longer period of time. Does he want to have a large circle of acquaintances or one or two close friends? Does he want to join and mix in a lively social club or to be able to talk to people in the break at an evening class? These kind of issues are generally explored in depth during the course of clinical interviews, but have been ignored in the research literature.

3.4.4. ASSESSMENT OF SOCIAL PERCEPTION
In order to produce a 'skilled' response, the individual needs to perceive accurately the state of affairs in the immediate situation (section 1.3.4.4.). Work on social perception in relation to social skill is at an elementary stage and few well-validated instruments to assess social perception skills have been developed, possibly as a result of the conceptual confusion surrounding this area.

Studies of self-perception have been concerned either with self-monitoring (see section 3.4.6.) or with asking subjects to rate their performance in role-played scenes (e.g. Curran, Wallander & Fischetti, 1980, Clark & Arkowitz 1975) and comparisons for 'accuracy' made with observers' scores.

Perception of others in social situations has been assessed in a number of ways. Fischetti, Curran and Wessberg (1977) asked subjects to view videotapes of a female talking about her life and press a switch whenever they felt that a response communicated understanding or rapport. Whereas the perceptual skills being measured by Fischetti et al were presumably considered important in developing relationships, Morrison, Bellack & Hersen (1979, cited in Morrison & Bellack 1981) were concerned with perception in relation to assertion. The subjects in their study were required to rate videotapes portraying submissive, assertive and angry-hostile responses to each of six negative assertion scenes and unappreciative, overly solicitous and appropriately appreciative responses to each of six positive scenes.
Archer & Akert's (1977) Social Interpretation Test (SIT) is a particularly promising measure for assessing perception of others in social interaction. They selected twenty scenes, 30 to 60 seconds in duration, edited from the same number of naturally occurring sequences of behaviour. Using a multiple choice format, subjects are required to answer a different interpretative question about the people in each scene or their relationships. For each scene there is an ambiguous criterion of reality. For example, in one scene there is a baby and two adults, one of whom actually is the baby's mother. The subject on viewing the scene, is asked to identify the mother.

These tests are concerned with the interpretation of the presented stimuli. (i.e. the others in the situation). Yet faulty interpretation could be the result of a number of factors, e.g. failure to attend to the relevant cues, a lack of knowledge of the meaning of the various response cues, a strong and overriding inappropriate cognitive schema relating to that situation. It would therefore seem desirable that social interpretation tests should attempt not only to get at the individual's interpretation of the situation but to determine the basis on which that interpretation was made.

Although there has been a good deal of emphasis on the situation-specificity of social skills at a theoretical level, little emphasis has been placed on the assessment of perception of situations. Although much of this information would be gained from the behaviour of those in the situation, there are those properties of the situation itself (e.g. whether it is a formal or informal situation), accurate perception of which would be crucial to appropriate behaviour in the situation.

Whilst social perception is now generally considered to be of fundamental importance to socially skilled behaviour, few measures have been developed for its measurement either in relation to self-perception, perception of others or the situation itself.

3.4.5. **ASSESSMENT OF THE TRANSLATION PROCESS**

This is the cognitive, problem-solving stage of the social skill cycle in which perceptions, according to Argyle are 'translated' into actions. (section 1.6.5.).
One of the most widely used tools for assessing problem solving skills is the Means-End-Test developed by Spivack & Schure (1974) who suggested that separate skills were involved in this process: problem recognition, means-ends thinking, causal thinking, perspective taking and consequential thinking. The subject, in this test, is presented with an initial problem, and a successful outcome. He is then requested to produce the intervening steps in the form of a story which is subsequently scored on a variety of semi-objective dimensions. In this way an assessment can be made of the individual's ability to identify behaviours or sequences of behaviour which will lead to the attainment of a specified goal or outcome. Its main limitation, however, is that it does not allow for the assessment of the subject's evaluation of the outcome of various behavioural strategies.

Response evaluation forms an important part of Goldfried & D'Zurilla's (1969) behavioural-analytic model for assessing social competence. They present a rigorous set of guidelines for developing tools for the assessment of problem-solving skills. The stages involved include situation analysis, response enumeration, and response evaluation, development of a measuring format and evaluation of that measure. It is unfortunate that their suggestions have not been taken up or developed by other researchers but the model still remains a valuable contribution to the assessment of the social problem-solving aspects of social skill.

3.4.6. ASSESSMENT OF INTERPRETATION OF FEEDBACK

The process involved at this stage of the cycle is usually referred to as monitoring. As discussed in Section 1.6.7, there are several aspects of monitoring but as yet only one assessment instrument has been designed for its measurement (Snyder 1974). He used the term self-monitoring to mean self observation and self control with the emphasis on behavioural flexibility. His self-monitoring questionnaire includes items which describe concern with social appropriateness of self-presentation, attention to social comparison information as cues to appropriate self-expression, the ability to control and modify self presentation and expressive behaviour and the extent to which expressive behaviour and self-presentation is cross-situationally consistent or variable.

Because Snyder's concept of self-monitoring is somewhat restricted and does not concern itself with what Trower (1982) refers to as the internal monitoring of goals, standards or beliefs, the scale is similarly limited,
since it takes no account of the individual's ability to act in a way which is also consistent with his goals, beliefs etc. Instead, the scale seems to be measuring the ability to emit socially conforming rather than socially skilled behaviour (in the Argyle sense).

3.5. SUMMARY & CONCLUSIONS
This chapter has examined some of the assessment procedures developed for the assessment of social skill (and related areas of functioning) in relation to the theoretical perspectives discussed in Chapter 1.

The main emphasis has been on the design of procedures to assess the behavioural aspects of skill. Cognitive assessment procedures have been developed, but mainly in the context of cognitive therapy rather than in relation to social skill. Of those procedures employed to assess the cognitive aspects of social skill, many have been designed without sufficient attention to underlying theoretical considerations. There has been considerable development in social skill at a theoretical level over the last three years and a number of theoretical papers and chapters concentrating solely on the assessment of social skill, have been published. Such work is beginning to generate more sound and comprehensive sets of strategies for the assessment of social skill in the future.
CHAPTER 4
RESEARCH METHODS

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CHAPTER 4
RESEARCH METHODS

4.1.  INTRODUCTION
This study was designed to examine the social skills (and social environment) of schizophrenics in remission living in the community. It was carried out from the perspective of the social skill model proposed by Argyle & Kendon (1967) as expanded by the author (Chapter 1).

Social skills research has tended to concentrate on the assessment (and training) of the subjects' behavioural response (Chapter 3). The present study follows that tradition by assessing verbal and non-verbal behaviour, but also examines some of the cognitive aspects of the social skill process which, it was suggested in Chapter 2 may be impaired by factors relating to the psychopathology of the illness or by environmental factors.

4.2.  RESEARCH DESIGN
This study employed a cross-sectional design in which information collected at a single point in time from a sample of male schizophrenics and a matched sample of normals was compared on a number of variables. Comparisons were also made between the schizophrenics and their relatives.

The use of cross-sectional designs with schizophrenic populations does present particular problems in that the subject may, and indeed is likely to, undergo significant psychological changes during the course of his illness and researchers are increasingly turning to longitudinal designs in the study of schizophrenia. The cross-sectional design however can be useful in identifying specific areas in a relatively new field of research which can subsequently be followed up by longitudinal studies. The study of schizophrenia from the social skills perspective is a surprisingly neglected area in the research literature (although there are a number of studies evaluating the effects of social skills training on schizophrenics (Wallace 1984) and it was for this reason as well as because of the obvious constraints of time, that a cross-sectional design was chosen for this research.
Having chosen the general design, the next decision was the specific method of approach. Some of the information sought could be organized in the form of questionnaire but much of the information could only be obtained by behavioural observation. This could take place in settings ranging from naturalistic to controlled laboratory (see section 3.3.1.). Although naturalistic in vivo observations might at first consideration seem the most desirable method of observational assessment there are a number of problems with this approach, such as gaining access into the lives of the subjects and the difficulty in handling the quantity of unstructured data generated by a sample of sufficient size to make a cross-sectional design feasible. Moreover the most important consideration in relation to this research was that it was concerned not only with the manifest social behaviour of the schizophrenic but in identifying the social behaviours in his repertoire. Procedures consisting of standardized and semi-standardized role-play tests were therefore chosen for this study.

Gaining access to individuals' perceptions of social situations required yet another approach and it was decided that this should be done by questionnaire administered after the subjects had been shown scenes of various social interactions on video.

Finally it was decided that a semi-structured interview would be the best way to establish a relationship of trust (necessary in order to carry out the role-play procedures) and also to gain access to information which might only be obtained through probing. It would also provide opportunity for the administration of any questionnaire used.

The overall research design was therefore cross-sectional and the specific methods used for data collection were questionnaire, role-play tests, questionnaire following observation of video scenes and semi-structured interview.

The specific assessment procedures used to test the various hypotheses and questions (see section 2.4.) are presented in relation to those hypotheses and questions in table 4.1.
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<tr>
<td>Hypothesis 3 -</td>
<td>Goal/Behaviour Role-Play Test (Section 4.4.2.)</td>
</tr>
<tr>
<td>There will be differences between schizophrenics &amp; non-schizophrenics in the way in which they formulate their goals in positive &amp; negative assertion situations.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 4 -</td>
<td>Semi-Structured Interview (Section 4.4.6.)</td>
</tr>
<tr>
<td>Schizophrenics will be found to be quite content with their current social life &amp; ability to get on with people. They will not have long-term goals of a social nature.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 5 -</td>
<td>Social Perception Test (Section 4.4.4.)</td>
</tr>
<tr>
<td>There will be differences between schizophrenics &amp; non-schizophrenics in their perception of social situations.</td>
<td></td>
</tr>
<tr>
<td>Hypothesis 6 -</td>
<td>Social Situations Questionnaire (Section 4.4.5.)</td>
</tr>
<tr>
<td>There will be differences between schizophrenics &amp; non-schizophrenics in the range &amp; frequency of social contacts.</td>
<td></td>
</tr>
</tbody>
</table>

RESEARCH QUESTIONS

1. How accurate are the schizophrenics' self-cognitions in relation to social functioning. 
   Social Coping Questionnaire Social Coping Questionnaire (relative's version). Semi-Standardized Conversation Test

2. In what way do schizophrenics cognitively construe situations they perceive as difficult? 
   Semi-Structured Interview with schizophrenics

3. Is there a discrepancy between the schizophrenic's social goals & those of his relative for him? 
   Semi-Structured Interview with schizophrenics & relatives

4. Is there an association between the personal characteristics of the sample and performance on the tests of social skill? 
   Multiple regression analysis of the results of the tests
Observational procedures (discussed in section 3.3.1.) are fairly well developed and this study has drawn on some of the ideas in this area in designing and adapting tests to assess verbal and non-verbal behaviour.

Methods for assessing cognitions, however, are still at an early stage of development (section 3.4.1.). Existing questionnaires were not particularly relevant to this study e.g. The Hopelessness Questionnaire (Beck, Weissman, Lester & Trexler 1974) and it was therefore necessary to design a new questionnaire specifically for this study. A relative's version of this questionnaire was also produced in order to compare schizophrenics' self-cognitions with those of their relatives.

In order to assess the subjects' goals (an area much neglected in the social skills literature (section 3.4.3.) an existing role-play test (the BAT-R) was adapted so that subjects not only had to respond behaviourally, but were required to state their goals in the situations. Longer-term social goals were examined by a semi-structured interview.

Relatively few tests have been devised to assess social perception (section 3.4.4.) and difficulty of access to existing material (and also the possibility of difficulties arising out of using material developed in another culture) necessitated the design of a new test of social perception for this study. Scenes were developed for this study which were presented to the subjects on video-tape. An open-ended questionnaire was then used to gain information on the subjects' perception of the scenes.

Finally data was collected about the range and frequency of social activities via another questionnaire designed for this study. Existing questionnaires were not used as it was felt that the base lines of such questionnaires were too high for the sample in this study.

No attempt was made in this study to examine the social knowledge of the subjects. This is an area too complex to be included in a study of this size. Also in developing such tests time would not have permitted the collection of normative data necessary for the development of tests of social knowledge of schizophrenic patients.
The other component of the social skill cycle not directly tested was the feedback stage which involves monitoring of both self and changes in the environment. Certain implications for the monitoring process however could be drawn from the analysis of other tests, e.g. by comparing the results of the Social Coping questionnaire with those of the relatives' version of that questionnaire and the Conversation Role-Play Test it should be possible to assess whether or not schizophrenics are accurate self monitors.

The tests mentioned above are described in detail in sections 4.4.1. - 4.4.4.

4.3. THE SAMPLE
The sample consisted of 23 male non-paranoid schizophrenics aged 18-40 years living in non-hostel accommodation in the community. Only those judged to be unequivocally schizophrenic by a consultant psychiatrist with reference to the Present State Examination (Wing 1970) and who had been stabilized for at least six months, were included in the sample. Only males were chosen and the age range limited in order to introduce maximum homogeneity whilst at the same time ensuring a sufficiently large sample. The lower age limit was set at 18 to exclude adolescents (who may present a different set of problems) and the upper age at 40 in order to exclude those schizophrenics who may have received very different treatment before the widespread use of phenothiazine medication. The upper age limit was also imposed to reduce the effects of chronicity on the results.

The final sample consisted of 23 out of 29 schizophrenics identified by three consultant psychiatrists as fulfilling the above criteria. Of the five not included in the study two refused, two were considered by the researcher to be insufficiently stable to be able to cooperate and one to be predominantly paranoid. Subsequent discussions with the referring psychiatrists revealed that the acute and paranoid symptoms had become manifest after the initial referral was made.
Sampling and the Nature of Schizophrenia

As stated above, the subjects were initially identified as schizophrenic by consultant psychiatrists working in the NHS. But in clinical practice psychiatric diagnosis is notoriously unreliable (Neale & Oltmanns 1980), particularly in the case of schizophrenia where there may be disagreement about the very nature of the phenomenon. The old classification of hebephrenic catatonic, simple and paranoid is being replaced by classifications along dimensions: acute/chronic; process/relative; paranoid/non-paranoid, and in choosing a sample, it is necessary to take these dimensions into account. In selecting the sample for this research, the predominantly paranoid schizophrenics were excluded as it was thought that the paranoia which would be likely to affect the cognitive aspect of social skill would be introducing another variable into the sample.

Subjects at both extremes of the acute/chronic dimension were excluded - at the acute end by only including subjects who had been stabilized for at least six months, and at the chronic end by excluding anyone over 40. However, this still left quite a wide range in the middle.

No attempt was made to choose those either at the process or the reactive end of the scale as this would have reduced the sample considerably. Data was however obtained to classify the sample on process/reactive variables using parts B, E & F of the Philip's (1953) Pre-Morbid Rating Scale.

Another major problem in research on schizophrenics is the fact that most of them take long-term phenothiazine medication (21 out of 23 in the case of this research) and this in itself may explain differences between schizophrenics and those populations who are not receiving such medication. One approach to overcoming this difficulty has been to find if there is a correlation between medication level and the dependent variable in question. However, the level of medication may interact with the level of pathology making simple correlations difficult to interpret. Another approach has been to compare schizophrenics with neurotics on phenothiazines but this also creates problems as the effect of phenothiazines on a non-psychotic patient may be very different from the effects on a schizophrenic population.
In the present study, these issues, whilst worthy of consideration, were not highly pertinent. The purpose of the study was to examine the social behaviour of schizophrenics, most of whom will be, and are likely to remain on phenothiazines (at least for the foreseeable future). Therefore whilst it might be interesting and useful to control for medication as this might provide information on the relative contributions of schizophrenia and medication to social behaviour, it was not necessary for the purposes of the present study.

Characteristics of the Sample Selected for this Study

**Age**

<table>
<thead>
<tr>
<th>AGE OF SCHIZOPHRENIC SAMPLE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 25 years</td>
<td>4</td>
</tr>
<tr>
<td>26 - 34 years</td>
<td>11</td>
</tr>
<tr>
<td>35 - 40 years</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

**Social Class**

Social class of the adult male is generally determined by his current or last occupation (where unemployed or retired). A high proportion of schizophrenics are likely to be unemployed and many will hold or have held jobs of a lower status than might be expected in relation to family, siblings or previous educational attainment. For this reason the social class of the schizophrenics living with their families was determined by the present or last occupation of the parent with the higher status job using Goldthorpe's classification (summarized in Heath 1981). 21 out of the sample of 23 were classified in this way. The remaining two subjects lived and supported themselves away from the parental home during the week,
returning home at weekends. These two subjects were classified according to their own jobs. (In both cases this turned out to be the same as their fathers'). Whilst this involved applying two criteria to determine social class, it was considered that this produced a more realistic classification.

TABLE 4.3.
SOCIAL CLASS OF SCHIZOPHRENIC SAMPLE

<table>
<thead>
<tr>
<th>Social Class</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 &amp; 2</td>
<td>13</td>
</tr>
<tr>
<td>3 &amp; 4</td>
<td>4</td>
</tr>
<tr>
<td>5, 6, 7</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>

Obtaining a sample from a predominantly middle class, and therefore an atypical catchment area has, as can be seen, produced an extremely biased sample. Problems of access to other catchment areas, together with the location of the university in which this research was conducted and which the subjects were required to visit, left no option for choosing a more representative sample of schizophrenics. This problem has however been to some extent offset by matching normal sample on social class (as well as age and sex).

Verbal Ability
The Mill Hill Vocabulary Scale (Synonyms) was used in order to obtain an index of the samples' capacity for intellectual activity. Because of the constraints of time, only the synonym test was used but total scores for each subject were calculated from the Mill Hill Vocabulary Scale Guide (Raven 1965). Although the schizophrenic sample and normal controls were not matched on intellectual capacity, the results of the test provided information about sample differences and enabled correlations to be made between intellectual capacity and social skill.
TABLE 4.4.
VERBAL ABILITY OF SCHIZOPHRENIC SAMPLE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbally superior</td>
<td>2</td>
</tr>
<tr>
<td>Definitely above average</td>
<td>2</td>
</tr>
<tr>
<td>Verbally average</td>
<td>9</td>
</tr>
<tr>
<td>Definitely below average</td>
<td>8</td>
</tr>
<tr>
<td>Verbally defective</td>
<td>2</td>
</tr>
</tbody>
</table>

Total 23

Chronicity of Illness
Chronicity of the schizophrenics' illness was calculated by subtracting the subjects' age at the time of first diagnosis or mention of schizophrenia (in records) from his current age.

TABLE 4.5.
CHRONICITY

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years</td>
<td>7</td>
</tr>
<tr>
<td>3 - 7 years</td>
<td>9</td>
</tr>
<tr>
<td>12 - 22 years</td>
<td>7</td>
</tr>
</tbody>
</table>

Total 23
Hospital Admissions

**TABLE 4.6.**
**NUMBER OF ADMISSIONS**

<table>
<thead>
<tr>
<th>No Admissions</th>
<th>1</th>
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<tbody>
<tr>
<td>1 Admission</td>
<td>12</td>
</tr>
<tr>
<td>2 - 5 Admissions</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23</td>
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</tbody>
</table>

**TABLE 4.7.**
**TOTAL DURATION OF ADMISSIONS**

<table>
<thead>
<tr>
<th>Less than 5 months</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 12 months</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23</td>
</tr>
</tbody>
</table>

**TABLE 4.8.**
**TIME SINCE LAST ADMISSION**

<table>
<thead>
<tr>
<th>Less than 1 year</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years</td>
<td>7</td>
</tr>
<tr>
<td>5 - 19 years</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23</td>
</tr>
</tbody>
</table>
Premorbid Social Functioning
Parts B, E and F of the Phillips (1953) Premorbid Rating Scale were used in order to give information about premorbid social and heterosocial functioning. These were the sections of the questionnaires most relevant to this study.

TABLE 4.9.
PREMORBID SOCIAL FUNCTIONING

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>10</td>
</tr>
<tr>
<td>Poor</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>

TABLE 4.10.
MEDICATION

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-psychotic medication</td>
<td>21</td>
</tr>
<tr>
<td>No medication</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>
Employment

TABLE 4.11.
EMPLOYMENT STATUS

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>5</td>
</tr>
<tr>
<td>Part-time (sheltered)</td>
<td>1</td>
</tr>
<tr>
<td>Unemployed</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

TABLE 4.12.
% TIME EMPLOYED SINCE ONSET

<table>
<thead>
<tr>
<th>% Time Employed</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 25%</td>
<td>11</td>
</tr>
<tr>
<td>25 - 74%</td>
<td>6</td>
</tr>
<tr>
<td>75%</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

TABLE 4.13.
CAREER MOBILITY

<table>
<thead>
<tr>
<th>Mobility</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up</td>
<td>0</td>
</tr>
<tr>
<td>Static</td>
<td>13</td>
</tr>
<tr>
<td>Down</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>
The Control Group

In order to determine whether the dependent variables in question are related to schizophrenia, the schizophrenic subjects must be compared with a non-schizophrenic control group. However, there may be a number of variables other than schizophrenia which may account for differences between schizophrenics and non-schizophrenics. The most obvious of these is medication (discussed above) but also important are patient status and role, psychological problems which may or may not be associated with illness, and the chronicity of the illness. Patient status and psychological problems can be controlled for by comparing the schizophrenic sample with non-psychotic psychiatric patients, but as such patients generally receive psychiatric services for a shorter period of time such a sample would not control for chronicity. An alternative to a psychiatric control group which would control for chronicity, patient status and problems related to illness would be to use a chronically physically ill group. Attempts were made for the purpose of this study to obtain a physically ill, a non-psychotic psychiatric and a normal control group, although because of the time constraint it was not envisaged that it would not be possible to have both a chronically physically ill and a non-psychotic psychiatric control group, but one or the other. Access to a physically ill group proved extremely difficult as the researcher had worked exclusively in psychiatry and this idea was eventually abandoned. As for the non-psychotic psychiatric group, whilst access was not a problem, finding suitable subjects was. Six psychologists and three psychiatrists agreed to cooperate in selecting a sample but at the end of a six month period only three potential subjects who fulfilled the criteria and who had consented to take part in the project had been found. It was therefore decided to use only one control sample, consisting of normal subjects. This did, however enable data to be collected on a larger sample of schizophrenics than originally had been envisaged.

Having decided on the type of control group or groups, decisions had then to be made about which variables on which to match. Matching in schizophrenic research presents a number of problems and matching on one variable may result in a systematic unmatching in another, e.g. subjects matched on marital status may be unmatched on age. Ultimately, the variable chosen on which to match must depend on the goals of the investigation and the hypotheses which underly the study.
For the purposes of this study, it was decided to match on sex, age and social class. These were chosen because they were considered to be fundamentally important in social functioning. Sex was chosen because in spite of the vast amount of research in the USA on dating and heterosexual skills, we know very little about the specific differences between men and women in relation to their social behaviour, but it can be assumed that such differences do exist and would therefore constitute another independent variable.

The sample was matched on age because it is apparent that social needs and patterns of social relationships normally vary and change over time, also that people may develop existing or different social skills as they get older. The sample was divided into three age groups for the purposes of matching: 18-24 years (4 subjects in each group), a period generally of socializing with same sex and forming relationships with the opposite sex; 25-34 years (11 subjects in each group) generally a period when social, sexual and work relations are consolidated and 35-40 years (8 subjects in the schizophrenic group, 7 in the control group) a period when stability and security in relationships is often achieved.

The decision to match on social class (using Goldthorpe's classification) was made not because it was thought that this variable might affect the overall level of social skill but rather the actual behaviours involved in interaction. Also the subjects were required in this study to interact with two stooges who were essentially middle class and it was felt that this might influence the behaviour of the subjects. Matching on social class controlled for this.

Collecting the control group proved more difficult than collecting the schizophrenic sample. Because the procedures chosen for the research required the subjects to interact with the researcher in a role-played conversation, it was important that the control subjects, like the schizophrenic subjects, were previously unknown to the researcher. It was decided not to advertise for subjects nor to use a research panel of volunteers as this could have produced an atypical sample. Instead potential control subjects were approached through third parties: colleagues, friends etc. Contacting subjects at the upper end of the
social scale presented few problems but at the lower end it was more
difficult. Contact was made with the local Unemployed Peoples Centre, but
most of the people approached there had histories of institutionalization
(childrens' homes, borstal, prison) or psychiatric histories. They were
therefore not included in the 'normal' sample. A local factory was
approached but problems with the trade unions prevented further contact.
Eventually the researcher resorted to accosting people like contract window
cleaners on the university campus who for a small reimbursement (£5),
proved very willing to give up approximately one hour of their time.

Potential subjects were told that the project was concerned with people who
had had severe and long-term mental illness and that in order to look at
this it was necessary to obtain help of people who had not had long-term
serious psychiatric problems. Because most of the control subjects were
contacted through a known third party the researcher was fairly sure at the
contact stage that these subjects had not themselves had a severe or
long-term mental illness. However, further questions during interview were
designed to confirm this. (Have you ever been referred to a psychiatrist?
Are you currently taking any prescribed medication? If so what?).

Other Characteristics of the Control Group
(Figures for schizophrenics are given in brackets)

<table>
<thead>
<tr>
<th>TABLE 4.14</th>
<th>VERBAL ABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbally superior</td>
<td>5 (2)</td>
</tr>
<tr>
<td>Definitely above average</td>
<td>3 (2)</td>
</tr>
<tr>
<td>Verbally average</td>
<td>10 (9)</td>
</tr>
<tr>
<td>Definitely below average</td>
<td>4 (8)</td>
</tr>
<tr>
<td>Verbally defective</td>
<td>0 (2)</td>
</tr>
<tr>
<td>Total</td>
<td>22 (23)</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--</td>
</tr>
<tr>
<td>Full-time</td>
<td>22 (5)</td>
</tr>
<tr>
<td>Part-time (sheltered)</td>
<td>- (1)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>- (17)</td>
</tr>
<tr>
<td>Total</td>
<td>22 (23)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Career Mobility</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Up</td>
<td>16 (-)</td>
</tr>
<tr>
<td>Static</td>
<td>- (13)</td>
</tr>
<tr>
<td>Down</td>
<td>6 (10)</td>
</tr>
<tr>
<td>Total</td>
<td>22 (23)</td>
</tr>
</tbody>
</table>

Psychiatric History

Only one of the control subjects had a psychiatric history. This subject had had a period of depression five years previously which had lasted for about six months. He was at that time treated with tricyclic antidepressant medication by his G.P. He reported he had no residual symptoms.
4.4. ASSESSMENT INSTRUMENTS

In this section the assessment instruments are described first and their rationale and development subsequently discussed.

4.4.1 SEMI-STANDARDIZED CONVERSATION TEST

In this test the subject is required to hold a conversation with two people - a male stooge with whom the subject has had no previous contact and the female researcher. The following background information is supplied to the subject (see section 4.5 for details of instructions): he is visiting a friend's house and this friend has been called to the telephone; two people arrive, one whom he knows slightly (the woman), the other, a man is a stranger. His friend, before answering the telephone, tells him of their imminent arrival and asks him to look after them. The conversation, unbeknown to the subject, has been semi-standardized and consists of four phases.

1. Opening. The couple enter, the woman first followed by the man who has his arm in a sling. The woman says 'Hello......(name) we've met here before I think, I'm Jill'. The man then says, 'Hello I'm Keith'. The stooges then sit down and respond to the subject's opening questions/comments with adequate but not over-elaborate replies. If the subject does not make any attempt at opening a conversation, the stooges wait for ten seconds after which the female asks the male (stooge) 'How's your arm Keith?'

2. Invitation to Join In. He replies, 'It's coming along fine', and turns to the subject, 'I got knocked off my bike'.

If the subject does not respond to this invitation to join the conversation, the stooges wait another ten seconds before proceeding to the next phase.

3. Response to Questions. The stooges then ask the subject six questions. If the subject has, as instructed, initiated the conversation these questions are included in the context of the conversation. If the subject spontaneously mentions and enquires about the male stooge's arm and the male stooge provided information about how he has received his injury, the
female stooge proceeds immediately with the first question. Where the subject makes no reference to the injury, the female stooge at the earliest opportunity after the subject had opened the conversation asks the male stooge how his arm is. The male stooge then explains how he received his injury and the female stooge follows this with the first question. The questions are as follows:

1. Have you got a bike?

2. What about (other forms of) transport. How do you normally like to get around? (The precise form of this question will clearly depend on the response to question 1).

3. Do you live around here?

4. What's it like around there?

5. What about hobbies or interests? How do you like to spend your spare time?

6. An open-ended follow-up question about any interests mentioned in response to question 5. If no interests mentioned the subject is asked, What about television or radio?

4. Maintaining. After the questioning phase the stooges ask no more questions but respond (adequately but not over-elaborating) to subject's questions. If the subject makes no attempt to maintain the conversation the interaction is terminated after 20 seconds silence by the female stooge saying, 'I'm going to have to go, I only dropped in for a minute. I'll see John on the way out. It's been nice seeing you again - goodbye'. If the subject maintains conversation, the interaction is terminated in the above way one minute after the end of the subject's response to the last question. This is defined as the point at which the subject hands over the conversation by asking a question or if he leaves a gap of five seconds or more before continuing.

The female stooge on leaving her seat indicates that the interaction is at an end and switches off the camera.
Ratings for the Semi-Standardized Conversation

In selecting behaviours to be rated, consideration was given to those behaviors found to be important to social skill by other researchers (e.g. Spence & Spence 1980, Trower, Bryant & Argyle 1978) and also behaviors which seemed, on clinical observation by the researcher, to cause particular problems to schizophrenics. A combination of both quantatitive (timing and counting) and qualitative ratings of both non-verbal and verbal behaviour were used. (See section 3.3.1.). Quantitative ratings, whilst providing objective information free from personal or cultural bias, can be misleading. For example, one individual may spend the same length of time looking at another in conversation and his glances be of a similar duration as another individual, yet his eye gaze may be considered completely inappropriate in terms of the sequencing and handing over of conversation. Quantitative ratings alone would not identify this. For other behaviours such as facial expression and posture, quantitative ratings present problems, although various attempts have been made at classification. Even with smiling, it is sometimes difficult to determine the exact moment of onset and termination. Although smiling was rated quantitatively, only qualitative ratings were made of facial expressions. Quantitative ratings were made using a stopwatch and counter. Qualitative ratings were made by three independent raters: a clinical psychologist (female), a nurse therapist (male) and a psychiatric nurse (female). All were experienced in behavioural observation and assessment. Before making the ratings they familiarized (or refamiliarized) themselves with Argyle & Kendon's model of social skill. Ratings were made on a 5-point scale of appropriateness ranging from completely inappropriate to completely appropriate. Video-taped recordings of the schizophrenic and control subjects were presented to the raters randomly. (Data on interrater reliability are presented in sections 5.2. and 5.3.).

Behaviours Selected for Rating

1. Quantitative ratings of speech and components of speech

   Subject's speaking time (as a percentage of total conversation time)

   Length of response to question 1

   Length of response to question 2
Length of response to question 3
Length of response to question 4
Length of response to question 5
Length of response to question 6

Number of responses which include no elaboration
(e.g. 'Do you live around here? 'Yes')

Number of responses which include one or two
elaborating statements (e.g. 'Do you live
around here? 'Yes, about two miles outside the town'.)

Number of responses which include three or more
elaborating statements (forthwith referred to as a
'commentary').

Number of statements made by subject (per min.)
Number of commentaries made by subject (per min.)
Average length of commentary
Number of questions subject asks (per min.)
Length of pause at stage 1 of conversation (opening)
Length of pause at stage 2 (invitation to join in)
Length of pause at stage 4 (maintaining)

Latency of speech (percentage of speaking time spent
in hesitating)

2. Quantitative Ratings of Components of Speech
   Relating to Continuity of Conversation

The measurement of above discreet behaviours would not, in themselves, give
any indication of the progression and management of the conversation,
particularly with respect to handing over the conversation and encouraging
continuity. In order to assess these aspects of conversation, the
following behaviours were selected for rating.

Number of 'follow-up' questions asked by subject (per min.)
(This was defined as a question relating in content to current
subject under discussion)

Number of 'follow-up' statements (per min.)
(Defined as a statement made in response to statement or
commentary made by stooge)
Number of statements followed by a question (per min.)
Number of responses to questions followed by a question
Number of attention feedback responses
('Ah-ha, 'Oh really', 'I see', etc.)

3(a). Quantitative Ratings of Content of Speech

Percentage of subject's speaking time talking about self.
E.g. 'I usually go to the Lake District for my holidays although I don't like it in the summer when it's busy so I usually take my holidays in the spring'.

Percentage of total speaking time talking about the environment.
E.g. 'I usually go to the Lake District for my holidays (self). It gets very crowded in the summer and it's much pleasanter in the spring except the Easter holidays (environment). So I usually take my holidays in May' (self).

Percentage of total speaking time talking about others.
E.g. I usually go to the Lake District for my holidays (self). I've got a brother who has a small shop in Grasmere. He moved there five years ago' (others).

Percentage of total speaking time talking about other topics e.g. 'I usually go to the Lake District for my holidays. I like walking and keeping fit (self). There's been a lot of publicity recently about keeping fit and everybody seems to be doing it' (other topics).

3(b). Qualitative Ratings of Content of Speech

Appropriateness of content

How interesting was content

4(a). Quantitative Ratings of Non-verbal Behaviour

Percentage of total time spent looking towards male
Percentage of total time spent looking towards female
Number of head turns towards male
Number of head turns towards female
Number of separate smiles
Percentage of total time smiling
Number of redundant facial expressions
Number of gestures
Percentage of total time spent making redundant hand movements

Number of gross posture shifts (which involved major shifts of body above waist)

4(b). Qualitative Ratings of Non-verbal Behaviour

Looking
Facial expression
Posture
Tone of voice

5. Qualitative Global Ratings

Interest shown in others
Overall social skill

Rationale & Development of Semi-Standardized Conversation Test

A conversational role-play test was used because conversation is the main form of verbal exchange and essential in developing and maintaining social relationships.

The sling worn by the male stooge was adopted in order to give a focus to the conversation which was free from class, cultural or social bias.

The four phases of the conversation (opening, invitation to join in, responding to questions, maintaining) were chosen on the basis of observations and self-report of specific difficulty of schizophrenic subjects during the pilot stage of the study, on the evidence of empirical studies of conversation analysis, and on the researcher's clinical and social skills training experience.

The particular questions chosen attempted to follow a natural sequence starting with a straightforward, not too personal, closed question ('Do you have a bike?') leading to more open-ended personal questions requiring a greater degree of self-disclosure.

The form of the conversation was worked out in discussions with superiors and colleagues in advance of the initial piloting.
A number of alternative foci were explored before the idea of the sling was adopted and the general area of questions was chosen. The conversation was then piloted on four normal subjects (two students and two technicians) and three schizophrenics. Minor amendments were made to the format. It was felt by the researcher, the stooge and the main supervisor that the idea of the sling worked well. Adjustments were made to the length of pauses. It was felt that at stage 1 and 2 a pause of more than 10 seconds would lead to too much anxiety in the subject and that less than 5 seconds would not give sufficient opportunity for some to join in. The pilot stage also allowed for contingency plans to be made in the event of the subject giving the answer to a question before it was asked (e.g. if the subject stated he had a bike before he was asked, he was asked if he still had a bike or if he used his bike).

During this phase, experiments were carried out with the position of the chairs, table, tea (or coffee) and the camera. It was decided that the subject should be seated between the two stooges in order to get a clearer indication of when he was looking at either of them. The two stooges were seated on either side at an angle of 45° to the subject. Low chairs with arms were selected in order to approximate as near as possible in an institutional environment to living-room furniture. A low coffee table was provided for this reason and also in order to have the opportunity to put the tea down if desired.

FIGURE 4.1

The role-played scenes were recorded on a Phillips VCR NL502 on a Phillips video Camera V200
After a good deal of experimentation with the amount included in the frame, it was found that if the stooges were included, then detail of the subject's facial expression was lost and there was not a lot to be gained by including the subject's feet as foot movements could be deduced from movements of the knees. It was therefore decided to include the area between the top of the subject's head and his knees. This allowed for observations to be made of his facial expressions, body posture, gestures and hand movements.

The pilot phase, as well as enabling the details to be worked out, provided very important 'rehearsal' time for the stooges. This was felt to be necessary in order to give the subject the best opportunity to 'bring off' the conversation smoothly.

4.4.2. THE GOAL BEHAVIOUR ROLE-PLAY TEST

In this test the subject is presented (verbally) with eight situations adapted from the BAT(R) (Eisler, Herson, Miller & Blanchard 1975). (See section 3.3.1.). The eight scenes chosen are representative of

- positive assertion with familiar male
- positive assertion with unfamiliar male
- negative assertion with familiar male
- negative assertion with unfamiliar male
- positive assertion with familiar female
- positive assertion with unfamiliar female
- negative assertion with familiar female
- negative assertion with unfamiliar female

(See Appendix 4.1 for details of scenes).

The subject is required to say what he would want to do (state his goal) in each situation prior to role-playing the scene.

The same male stooge was used throughout the research and the researcher took the part of the female stooge.
Analysis of the Role-Play Test

The subject's goal or behavioural intent (i.e. what he would want to do) for each scene was classified into assertive, partly assertive or non-assertive according to pre-determined criteria established by the researcher in collaboration with a member of the sociology department for each scene. In the negative assertion scene with a familiar male -

Researcher: 'What would you want to do in that situation?'

Subject: 'I would want to tell him that I had already made arrangements for that evening but I could start on the job first thing in the morning' - ASSERTIVE.

Subject: 'I'd want to ask him if the job was important and if it was I would probably stay and finish it' - PARTLY ASSERTIVE.

Subject: 'Stay and finish the job' - NON-ASSERTIVE.

Further behavioural analysis of the tapes included:

Number of separate statements made in response
1. Whether or not the subject demanded a response from the stooge
2. Whether or not praise or appreciation was shown (for positive assertive scenes only)
3. Whether there was any spontaneous positive behaviour (e.g. inviting the darts team-mate for a drink) (positive assertive scenes only)
4. Whether any request was made for new behaviour (e.g. in scenes where girlfriend turns over the television channel asking not to switch it back) (negative assertive scenes only)
5. Whether or not the subject was compliant (negative assertive scenes only)
6. Whether any physical contact was made
7. Number of separate statements made in response.

(Nos. 1-5 are taken from the BAT-R, Nos. 6 & 7 were selected on the bases of problems encountered by some schizophrenics as identified in the literature).

Qualitative ratings were made of the subject's

Overall social skill
Non-verbal behaviour
Vocal behaviour
Verbal content
These ratings were made by the same three raters who rated the Semi-Standardized Conversation Test, i.e. a clinical psychologist (female), a nurse therapist (male) and a psychiatric nurse (female). The raters familiarized themselves with Argyle & Kendon's model of social skill. They were then read the subject's goal for each scene and asked to take this into account before making the ratings on a 5-point scale of appropriateness anchored at the lower end with completely inappropriate and at the top with completely appropriate. Schizophrenic and non-schizophrenic subjects were presented to the raters randomly.

Rationale and Development of the Role-Play Test
The BAT-R has been used extensively in the USA as a measure of assertive behaviour of mostly clinical populations. The scenes were modified for the purpose of this project to make them more culturally appropriate, e.g. a ballgame was changed to a football match and the actual language in some cases changed for the same reason. Only eight of the 36 original scenes were chosen because, as this was only one of several assessment procedures there was a limited time available.

The test, as originally conceived, takes no account of the cognitive aspects of assertion, e.g. what the individual thinks is acceptable behaviour, what he believes would be the outcome of various behavioural strategies, what he intends or intended to do in the situation, all of which might be important factors in determining his 'behaviour'. In the negative assertion scenes some mention is made of possible goals, e.g. 'You really want to get home on time tonight'. Yet even given the goal to get home on time, the subject might believe that it is his duty to do what the boss asks him or important to stay late if he wants to keep the job. Therefore if his behaviour is unassertive, it might be not because he does not have the appropriate behaviour in his repertoire for standing up to his boss but because of his beliefs, his intent or goal in the situation was unassertive. It may also of course be a combination of the two. By ascertaining the subject's goals in the situations, it was possible to judge whether or not the schizophrenic's goals were any different from the non-schizophrenic's and whether or not schizophrenics achieved their goals less often than non-schizophrenics. Perhaps most importantly it was possible for judgements about behaviour to be made having taken into
account the subject's goal. It therefore meant that if the raters thought that the subject's goals were reasonable even though perhaps not particularly assertive (e.g. to negotiate in the above situation) and the subject's behaviour compatible with the goal, then the subject could receive a high social skill score for his behaviour. If on the other hand his goal or behavioural intent was assertive (i.e. to tell his boss he was going home) but his behaviour unassertive (to negotiate) then he would be less likely to receive a high score for his behaviour.

The test was piloted on the same four normal subjects and three schizophrenics as for the piloting phase of the conversation. During this phase, final modifications were made to the actual wording of the scene descriptions and also to the instructions. It was decided to ask the subject what he would want to do in the situations because it was considered to be more important (particularly from the point of view of training) to find out what the subject's desired goal would be and whether he had the behaviour necessary to achieve it, rather than what he actually would do in the situation. Finally, but very importantly, camera settings were worked out so that the subject could be shot both sitting and standing without adjusting the camera. This was of crucial importance in the absence of a camera operator.

FIGURE 4.2

![Figure 4.2](image)

FIGURE 4.3

![Figure 4.3](image)
4.4.3. SOCIAL COPING QUESTIONNAIRE

There are two versions of this questionnaire:

(a) Subject's version (See Appendix 4.2.)
This version was designed to assess the subject's cognitions relating to specific aspects of verbal and non-verbal behaviour and more general social functioning. How an individual cognitively construes his ability to cope is important from the training perspective. It is also related to the concept of self-monitoring and self-perception (see section 1.6.1.). Although self-monitoring and self-perception takes place during the course of specific interactions and the questionnaire deals with the behaviours more generally, presumably the individual who rates himself high on social coping in spite of evidence from other sources to the contrary, would be likely to be an accurate self-monitor. The converse could also be true.

(b) Relative's version (See Appendix 4.3.)
In this version the significant relative is asked how he/she feels the subject copes with the same aspects of social behaviour about which the subjects are asked.

Rationale & Development of Social Coping Questionnaire

The concept of coping rather than the degree of difficulty or anxiety was chosen because it was considered that coping was more directly related to behaviour than either difficulty or anxiety. A person may feel highly anxious in for example, a job interview, and find the situation difficult, but judge that he coped reasonably well, i.e. that his behaviour in the situation was reasonably appropriate.

The subjects and relatives were asked about social coping:

(1) In order to give information on the accuracy of the schizophrenic's cognitive construal of his own social functioning by comparing the findings of the questionnaire with the results of the semi-standardized conversation:

(2) To compare the schizophrenic's cognitions relating to his own social functioning with those of the normal sample:

(3) To compare the schizophrenic's view of his social functioning with that of the relative's.
In developing the questionnaire, behavioural interviews were carried out with four pilot non-psychotic psychiatric patients, judged by a clinical psychologist to be unskilled. They were asked in detail about the areas of social functioning with which they felt they coped with least well. On the basis of these interviews, items were selected for the social coping questionnaire. The questionnaire was then piloted on four schizophrenic patients who met the criteria for the sample and several items modified.

Attempts were made to administer the questionnaire to a small sample of socially skilled and socially unskilled male non-psychotic psychiatric patients in order to give some indication of its discriminative validity but because of pressure of time at out-patient appointments, no data was collected by the clinical psychologists in question.

4.4.4. SOCIAL PERCEPTION TEST
This test consists of three short video-taped scenes presented in random order to the subject. The scenes represent three different types of social encounter:
(a) heterosocial - between a young man and a young woman in a pub; (b) work - between a boss and an office worker; (c) domestic - between a father and son at home. After each scene, the subject is asked to make judgements about the feelings of the people in the scene, (e.g. what did the boy feel at the end when he left?); about which behaviours has led him to make that judgement (e.g. what was it he did or said that made him think he was feeling......); about the intentions of the people involved (e.g. what was the main thing the young man was trying to do in the scene?), whether or not they succeeded in their intent (e.g. do you think he succeeded in asking her out?). (See Appendix 4.4).

Rationale & Development of the Social Perception and Interpretation Test
The importance of social perception in the social skill cycle and procedures for its measurement were discussed in section 1.6.4. and section 3.4.4. respectively. As no reliable procedures exist to date for this kind of assessment, it was necessary to construct a test specifically for this study.
Ideally scenes for this type of test should be relevant to the population in question and should be selected and developed empirically rather than on an ad hoc basis. The time scale of the research however, did not allow for this degree of detailed planning and it was therefore decided to choose scenes which represented different aspects of peoples' lives - home, work, social - and the details of each scene were worked out in collaboration with a clinical psychologist specializing in the area of social skill and a sociologist. The scenes were developed in outline and the outline presented to those selected to play the parts (colleagues, friends). The final scene evolved after between four and twelve trials, each one videotaped. The final scene was selected in consultation with the 'actors' on the basis of 'naturalness', i.e. the 'take' which came over as most 'real'.

The outline of the scenes as evolved are as follows.

Work scene
It is the new office girl's first day at work and the boss is showing her how to use the photocopier. He's doing this because he prides himself on his ability to get on with absolutely everybody and believes in taking an interest in even the most junior of staff, including showing them around and how to do various things (in fact some of the staff wish he wouldn't, particularly the senior secretary who really sees it as her job). The girl shows her nervousness for example by redundant hand and facial movements and clearly is a bit overawed at this amount of attention from the boss. He runs through how the machine works. She shows she does not understand by her uncertain answers and worried looks, but he doesn't really notice because he's in a hurry and anyway thinks he's done a good job in explaining, so anyone should be able to follow his instructions.

Home scene
This scene takes place at breakfast. The boy enters looking bright and cheerful and is excited about a football match which is to take place that evening and for which he has been selected to play. He reminds his father of the match and that he had already promised to attend. The son's tone of voice and his enquiries to his father suggest that it is important to him that his father sees him play. The father rather casually implies that he has forgotten all about it and has arranged to do something else. He does
not seem to be aware of how important his attendance is to his son. The son covers up his disappointment by saying it doesn't matter (although his tone of voice and facial expression would suggest otherwise) and the father asks him about his schoolwork with much more interest than when talking about the football match.

Heterosocial scene
A young man and a young woman who work for the same organization have met outside work on three occasions to play squash. Tonight he has suggested they go to a pub afterwards. He is extremely nervous and shy, particularly as he likes her and would like to ask her out. In the pub she gives him every opportunity to ask her but somehow he can't quite get round to it.

The three scenes were then presented to the first pilot group of six male social science students aged 18-30 years. They were asked to note their responses to the scenes. On the bases of this the main areas questions were selected, i.e. questions about feelings, intent etc.

The scenes were then presented to eight non-social science males (administrative and technical staff of the university) and specific questions asked, i.e. about feelings, intent etc. In addition subjects were asked about the particular behaviour of the actors which had led them to make the judgement they had about his or her feelings. It was hoped by asking this to get some indication of the subject's observational skills. It was not possible for practical reasons to use the same pilot groups throughout.

The scenes had been planned in such a way that the researcher had expected that a normal population would reach agreement on the feelings, intent and degree of success of the actors. For example, the girl in the heterosocial scene said she would like to see the film showing at the local cinema. However this particular scene caused some trouble and four out of the eight men either did not know what she felt about the man in the scene or perceived her as having negative feelings towards him. The other four all thought she liked him. For the other scenes, general agreement was reached.
The heterosocial scene was therefore remade, this time with a different girl who made it even more obvious both verbally and non-verbally that she liked the young man. The scene was presented to five different normal control subjects (of similar ages and occupations to the previous group) and this time agreement was reached.

The questions of feeling and intent were then put in multiple choice format and the question of success was phrased in such a way as to make it answerable even if the subject had either made a 'wrong' choice on the intent question or had failed to answer it.

The three scenes were then shown to four male schizophrenics (not part of the main sample) and after each scene the researcher read out the questions. For those in multiple choice format the subject was given the choices typed on a card. However it was found that the use of the multiple choice format did not discriminate between normals and schizophrenic control groups, i.e. the schizophrenics all gave the 'correct' answers (those which concurred with the normal control groups). It was therefore decided to abandon the multiple choice format and leave the questions open ended (see Appendix 4.4.).

An independent rater (male psychologist) later rated the responses to the questions of feeling and intent of the main sample as appropriate, partly appropriate and inappropriate using the answers supplied by the second normal pilot group as guidelines. (The second pilot group was considered to be more representative of a normal population than the first group).

4.4.5. SOCIAL SITUATIONS QUESTIONNAIRE

This questionnaire consists of 22 items and is concerned with the frequency of occurrence of various interpersonal activities (see Appendix 4.5.).

Development & Rationale of the Social Situations Questionnaire

The Social Situations Questionnaire was developed in order to give an indication of the range and frequency of interpersonal activities in which the schizophrenic engages, and to compare this with a normal population. Although this information is not directly relevant to the actual social skill of the subject from the social skills training perspective, it is important to know what situations the client engages in, what he avoids and
what social opportunities there are in which to practice newly acquired skills or whether these opportunities need to be created.

Items included in the questionnaire covered three main areas of social functioning:

1. Situations concerned with survival, e.g. going to the bank or post office.

2. 'Everyday' interpersonal encounters e.g. answering the telephone, greeting neighbours.

3. Activities of a more overtly social nature, e.g. going to places where they meet and talk to others, e.g. sports clubs.

Subjects were asked 'how often' they performed each item and as a check, when was the last time.

4.4.6. **SEMI-STRUCTURED INTERVIEWS:**

(a) With schizophrenics: (See appendix 4.6).

The following information was sought: (See section 4.3.).

1. Background information
   (a) age, marital status

   (b) employment record - (number, length & type of jobs before first schizophrenic episode and since)

   (c) factors relating to illness - hospital admissions
      (number & length) date of first referral & psychiatrist,
      date of last hospital admission, current medication

2. How the subject generally spends his day and who he meets during the course of the day.

3. Which situations with people he finds difficult or avoids (who is involved, what actually happens, how often does it occur, what the subject would like to be able to do in the situation).
4. Whether or not the subject is satisfied with his present social activities and his ability to get on with people.

5. If not, what he would like to be doing and what he thinks is stopping him.

6. Who at home the subject spends most time with (this person was thereafter referred to as the significant relative).

(b) With significant relatives: (See Appendix 4.7.)
This includes:

1. Background information (where subject has been unable to report).

2. The situations with people the relative perceives as being difficult for the schizophrenic or which he avoids.

3. Whether or not the relative is satisfied with the schizophrenic's social activities and his ability to get on with people.

4. If not, what the relative would like the subject to be doing.

5. What the relative thinks is stopping him.

(c) With control subjects: (See Appendix 4.6.)
This includes:

1. Background information on

   (a) age, marital status

   (b) employment - number, length & type

   (c) psychiatric history, medication etc.
Development of Semi-Structured Interviews

Background information about the illness (age of onset, hospitalization etc.) was sought in order to establish whether those factors relating to the course of the illness might be important when considering social skill. Information about pre-morbid and subsequent employment was obtained in order to examine the effects of the illness on the work history of the schizophrenic and to compare the schizophrenic sample with the normal control group.

Information about the daily routine of the subjects and who they met was needed in order to establish just how isolated or otherwise schizophrenics in the sample were. Do they, as the traditional view would suggest, get up at midday, stay in their rooms, avoid any interaction, wander the streets alone, or is this view overstated or wholly inaccurate, does it apply to some schizophrenics and not others, or is there a range of socially directed behaviour?

Questions were asked, and behavioural details sought, about situations which the subject had (or, in the case of the relatives' interview, the relative perceived the subject as having had) difficulty with or avoided the assumption (made from clinical experience with non-psychotic socially unskilled patients) being that those who are socially unskilled are able to identify the types of situations with which they experience difficulty, and are able to report with reasonable accuracy on them. They were asked what they would want to be able to do in the situation in order to establish what their goal would be, and what was stopping them doing or achieving this because the attribution of failure in situations may be important at a cognitive level in the training of social skill. On piloting, (with six schizophrenics and their relatives) however, it was found that most subjects and relatives found it problematic to conceptualize their difficulties in this way. For this reason, after consultation with two clinical psychologists working in the social skills area, the researcher drew up a list of 'typical' situations. It was envisaged that these situations should act as a stimulus and allow the subject to think in terms of situations (rather than attributing difficulties to his illness, mood, others etc.).
Subjects were asked whether they were satisfied or not with their current social functioning etc. in order to make some assessment of the subjects' motivation for change, again important when considering training. Relatives were asked similar questions in order to see whether there was agreement or conflict between their aims for the schizophrenic and the schizophrenic's own aims.

4.5. PROCEDURE

Collecting the Sample

An outline of the research was submitted to the ethical committees in the relevant hospitals and health districts and permission was granted to proceed with the research in all cases.

Psychiatrists, who worked in the three health districts and with whom the researcher had been professionally associated over a number of years, were approached by letter and in person, and asked to supply a sample of schizophrenics fulfilling the criteria discussed in 4.3. Names were collected and case records checked where possible for reliability of diagnosis.

Where the subjects had a telephone number, a letter was sent (See Appendix 4.8.), and the subject was telephoned one week later and an appointment made. Subjects were given the opportunity for the first meeting to take place at home, their local hospital or the university. All of these subjects chose to be visited at home. For those subjects without a telephone number, a letter was sent (See Appendix 4.9.) asking them to take part in the study and suggesting a day for a home visit.

First meeting with schizophrenic subjects

This included the Semi-Structured Interview (Section 4.4.6.), and administration of the Social Coping (Section 4.4.3.) the Social Situation Questionnaire (Section 4.4.5.), and Pre-morbid Social Functioning Questionnaire (Section 4.3.).

The interview was originally planned to follow a particular format which it was found inappropriate to follow exactly. The reason for this was possibly the differing expectations and aims of researcher and subject.
The researcher's aims were:

(a) To obtain information for the purposes of this study;

(b) To establish a relationship with the subject such that he would consent to visit the university and once there, agree to be videotaped.

The subject's aims, however, often seemed to be:

(a) To obtain information (about different aspects of schizophrenia and the local hospital service);

(b) To talk and express his feelings about his illness and the treatment received;

(c) To obtain help and guidance.

Whilst the researcher never saw it as her role to meet the above expectations of the subjects, they were impossible to ignore, particularly in the light of her second aim, i.e. to establish a relationship. Where relevant and appropriate, information was given to the subject, but not advice.

These problems were not so acute at the pilot stage possibly because the pilot subjects were obtained through the Schizophrenia Fellowship and as a result of which would be likely to be better informed and receiving more support than some of those in the main sample.

In spite of the above difficulties, background information and information relating to the illness and employment, responses to questions about how the subject spent his day and who he met were obtained for all the schizophrenic sample.

During the course of this interview, the Social Coping and the Social Situations Questionnaire were administered. For the Social Coping Questionnaire, the subject was issued with a sheet containing the items (and another sheet which were typed the responses from which to choose. The researcher read the items aloud and duly coded the subject's response. In the case of Social Situations Questionnaire, the subject was again issued with a sheet containing the items which the researcher read aloud, asking how often the subject performed them, and coding the responses. In order to check the accuracy of the responses, the researcher also asked
when the last time was each item was performed.

Information on Pre-morbid Social Functioning was also sought and coded.

The subject was then asked what situations with people he found difficult and then presented with the list of 'typical' situations drawn up at the pilot stage. However subjects tended to take the list as exhaustive and most failed to report any other situations.

The subject was then asked if he would take part in the second stage of the study which would involve coming to the university in order to look at some videotapes and to do one or two other things. Transport (and tea) were provided. He was also asked which of the people he lived with he spent most time (i.e. who was the significant relative), and whether he would agree to the researcher seeking an interview with that person. In all cases the subjects agreed to both requests.

The initial meeting with the schizophrenic subject generally lasted about 1½ - 2 hours, but occasionally longer.

**Meeting with significant relative**

This included the Semi-Structured Interview (Section 4.4.6.) and administration of the Social Coping Questionnaire - relatives' version (Section 4.4.3.).

The significant relative (i.e. the relative who had most contact with the subject) was contacted either during the initial meeting with the subject, by telephone or by letter. This meeting presented problems similar to those with the subject regarding differing objectives. Most of the relatives seemed to want the opportunity to talk about the things that bothered them and to seek help and guidance. (Some were quite understandably distressed). Again, whilst it was not appropriate to ignore this completely, information, mostly of a practical nature, was given and in four cases, the address of the local Schizophrenia Fellowship. (Only five of the main sample were already members).

During the course of this meeting data about the subject's illness, employment and pre-morbid social functioning was checked for accuracy and the Social Coping Questionnaire - relatives' version was administered. The
researcher then asked about the situations with which the subject had difficulty. Again the request for behavioural information presented problems in that the relatives, like the schizophrenics, seemed unable to conceptualize the problem in terms of situations although they had no difficulty with the Social Coping Questionnaire which was centered mainly in behavioural terms, or in terms of general areas of social functioning. Possibly the deficits occur in so many situations that it is difficult to identify them individually. As with the schizophrenic interviews, a list of situations was compiled but again, the list did not enable the relatives to identify other situations.

The relatives were then asked whether or not they were satisfied with the schizophrenic's social activities and ability to get on with people and what they would like to see their relative achieving socially.

Second meeting with schizophrenic sample
This included administration of the Social Perception Test (Section 4.4.4.), the Semi-Standardized Conversation Test (Section 4.4.1.), the Goal/Behavioural Role-Play Test (section 4.4.2.) and the Mill Hill Vocabulary Scale.

The second contact with the schizophrenic subjects took place at the University of Surrey. Five subjects drove themselves there, two were brought by relatives and the remaining 16 were brought from and taken back to their homes by the researcher.

The room used was mostly empty except for three armchairs around a coffee table, 2 chairs in front of a large monitor, a table with kettle, cups etc. on it and a camera and tripod.

The subject was shown the camera immediately on entering the room and was told that this was the camera on which the video scenes he was now going to watch had been made. This was said in order to familiarize him, to some extent, with the camera. He was then invited to sit with the researcher in front of the monitor and given the following instructions for the Social Perception Test:
'I'm now going to show you three short scenes and after each one, I'm going to ask you a few questions. It's not like a T.V. game where you have to remember things and there are no right or wrong answers. I just want your impressions. The first scene... etc. (See Appendix 4.4.).

Scenes were presented to the subject in random order. After each scene the questions were presented verbally to the subject and the responses taken down verbatim by the researcher.

On completion of the Social Interpretation Test the Mill Hill Vocabulary Scale (synonyms only) was administered. Tea or coffee (a vital prop for the next test) was then made and the subjects given the following instructions for the Semi-Standardized Conversation:

'I want you to imagine that you have called round to see a friend and you are sitting in his living room drinking a cup of coffee. A few minutes before this two other friends of his arrive but they are in the kitchen making coffee. He tells you who they are. You know one of them slightly, the woman, but the man you have never met. They know each other slightly. Then the phone rings and your friend goes to answer it and says to you "Jill and Keith are just making coffee. When they come through, can you look after them and make them feel at home. I'll only be a few minutes on the phone". So can you come and sit over here (see Fig. 4.1) and imagine it's your friend's living room and here is your cup of coffee/tea (researcher indicates chair and gives subject cup of coffee/tea). I am now going to leave the room and when I come in again I will be with a man - the man visiting your friend who you have never met, but we will imagine that you and I have met just once before here at this house. Remember, the man and I know each other only slightly. So what I'd like you to do when we come in is to open the conversation and try to keep it going by, for example, asking questions or telling us about yourself. I also want to record it on the video camera over there because I won't be able to remember everything that happens'.

The researcher would then switch on the camera, leave the room and return with the male stooge about ten seconds later and greet the subject (See section 4.4.1. for details of standardization).

On completing the Semi-Standardized Test the camera was switched off and the subject congratulated warmly for having taken part. He was then told
that there was just one more thing to do (the Role-Play Test - See section 4.4.2.) and his help was sought in re-arranging the furniture. He was then given the following instructions:

'I'm now going to read out to you a number of situations and I want you first of all to tell me what you would want to do in the situation, and then I'm going to ask you to go ahead and do it. I'll need to record this one too'.

The camera was switched on and the subject escorted into position and the scenes read, e.g.

'You've had a busy day at work and you are tired. Your boss comes in and asks you to stay late for the third time this week on a job you know is not all that urgent. You feel you would really like to go home on time tonight. Your boss says "I'm leaving now; would you mind staying and finishing the job"'.

The subject was then asked what he would want to do in that situation and his response recorded. If he did not understand the situation it was read to him a second time. This was only the case with two of the subjects with one and two scenes respectively.

After the subject responded the researcher would say:

'Now I want you to actually do it. I want you to imagine that this is (for example) your boss'.

The male stooge would then say his lines from the scene, speaking directly to the subject and the subject was required to respond. The researcher would then proceed to the next scene.

On completion of all eight scenes the camera was switched off, the subject thanked and escorted either to his car or driven home.

Meeting with the normal control subjects
This included the collection of face-sheet data (section 4.4.6.) and administration of the Social Coping (section 4.4.3.) and Social Situations Questionnaire, (section 4.4.5.), the Social Perception (section 4.4.4.), Semi-Standardized Conversation (section 4.4.1.), Goal/Behaviour Role-Play
Test (section 4.4.2.) and the Mill Hill Vocabulary Scale.

Contact with the normal control sample was made in a number of ways (See above).

Only one meeting took place with the normal control subjects. The same location was used on that for the second meeting with the schizophrenic subjects. Letters of explanation had been given to the controls before the first meeting (Appendix 4.10) but with the exception of three subjects, no other contact had been made between researcher, stooge and control subjects. In the case of the three subjects where previous contact had been made, this was very brief, and only to ask them if they would take part in the project.

The meeting with the controls followed the format of the first part of the Semi-Standardized Interview, and the Social Coping and Social Situations Questionnaire, the Mill Hill Vocabulary, Social Perception, Semi-Standardized Conversation and Role-Play Tests were administered as described above.

On completion of the tests thanks were given and the subject left.

Timescale
The empirical stage of this research took place over a period of 18 months. In most cases the second meeting with the schizophrenic subjects took place between one and two weeks after the first, and the relatives were seen during that time.

4.6. SUMMARY & CONCLUSIONS
This study of the cognitive and behavioural components of social skill and of the social environment of the schizophrenics has drawn on and developed tests devised by other researchers and has also included tests designed specifically for this study. It employed a cross-sectional design and the specific assessment instruments include questionnaires, role-play tests and semi-structured interviews. The subjects were 23 male schizophrenics living in the community who were matched on age and social class with 22 males drawn from a non-psychiatric population. Data was also collected from the relatives of the schizophrenics. The results from the tests described in this chapter are presented in Chapter 5, and a discussion of these results in Chapter 6.
CHAPTER 5
RESULTS

5.1. INTRODUCTION

5.2. SEMI-STANDARDIZED CONVERSATION TEST

5.3. GOAL/BEHAVIOUR ROLE-PLAY TEST

5.4. SOCIAL COPING QUESTIONNAIRE

5.4.1. Subject's Version
5.4.2. Relative's Version

5.5. SOCIAL PERCEPTION TEST

5.6. SOCIAL SITUATIONS QUESTIONNAIRE

5.7. THE SEMI-STRUCTURED INTERVIEW

5.8. RELATIONSHIP BETWEEN THE RESULTS OF THE TESTS

5.9. SUMMARY OF RESULTS
RESULTS

5.1. INTRODUCTION

The results of the tests described in the previous chapter are presented in this chapter and these results discussed in relation to the hypotheses and research questions (laid out in Chapter 2) in Chapter 6. The various tests can be seen in relation to the hypotheses in Table 4.1. (section 4.1.).

With such a small (and biased) sample the results of the statistical analyses should be treated with caution. This matter is discussed in Chapter 6 (Section 6.4.2.) where the individual tests are critically appraised (Section 6.4.3.).

5.2. SEMI-STANDARDIZED CONVERSATION TEST (See Section 4.4.1.)

The Semi-Standardized Conversation Test took the form of a conversation between the subject and two stooges, one male and one female. It was semi-standardized in terms of the setting (a friend's house), a possible focus of conversation (the male stooge's arm in a sling), the questions asked by the stooges and the maximum length of pauses allowed before intervention by a stooge (see section 4.4.1. for detailed description).

The conversation was videotaped and subsequently analysed quantitatively by the researcher and qualitatively by three external raters. Quantitative ratings included aspects of non-verbal behaviour, the number and length of utterances, mechanisms for handing over conversation and the content of speech. Qualitative ratings were made of overall social skill, appropriateness of verbal content, how interesting the subject was, the interest shown in the others by the subject and the appropriateness of facial expression, looking and positive. Ratings were made by three independent raters using a 5-point scale. The analyses were carried out using the Statistical Package for the Social Sciences (Nie, Hadlai Hull, Jenkins, Steinbrenner and Bent, 1975).

Quantitative ratings of non-verbal behaviour

The means, standard deviations and T-values for the quantitative ratings of non-verbal behaviour are shown below in tables 5.1. to 5.3. In order to introduce comparability between subjects, those behaviours which were counted are presented as the number per minute and those which were timed are presented as a percentage of the total time. The mean time of the conversation was 4 minutes 13 seconds (with a standard deviation of 1 minute 13 seconds) for the schizophrenic group and 5 minutes 36 seconds (with a standard deviation of 1 minute 20 seconds for the control group).
Both schizophrenics and controls spent more time looking and made more separate looks per minute towards the male than towards the female. (This was not really surprising as the initial focus of attention was in most cases the man's injured arm). The mean length of glances (calculated from the total looking time and number of glances) was very similar for both groups and was longer when the subject was looking towards the male than towards the female (5.3 secs and 4.8 secs for schizophrenics and controls respectively when looking towards the male and 3.4 and 3.6 secs respectively when looking towards the female). Although this might indicate a similar pattern of looking in some respects, schizophrenics looked quite a bit less at both the male and female stooges and made fewer looks per minute than the controls. There were also greater differences between schizophrenics and controls in their looking behaviour directed towards the female than towards the male.

With the exception of the number of looks towards the female the schizophrenics' looking behaviour was more variable than the controls, as can be seen from the larger standard deviations for the schizophrenics.
TABLE 5.2.
MEANS, STANDARD DEVIATIONS AND SEPARATE VARIANCE ESTIMATES FOR SCHIZOPHRENICS AND CONTROLS FOR QUANTITATIVE RATINGS OF FACIAL EXPRESSION IN THE SEMI-STANDARDIZED CONVERSATION

<table>
<thead>
<tr>
<th>BEHAVIOURS</th>
<th>MEANS</th>
<th>STANDARD DEVIATIONS</th>
<th>SEPARATE VARIANCE ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>T-VALUE</td>
<td>DEGREES OF FREEDOM</td>
</tr>
<tr>
<td>Percentage of time spent smiling</td>
<td>Schiz 7.1%</td>
<td>5.8</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Control 6.4%</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>No. of smiles per min.</td>
<td>Schiz 1.2</td>
<td>0.9</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Control 1.2</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>No. of redundant facial movements per min.</td>
<td>Schiz 1.3</td>
<td>2.8</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>Control 0.4</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

There was little difference between the schizophrenics and controls in the amount of time spent smiling, the number of smiles per minute and the number of redundant facial movements made per minute. Schizophrenics however tended to smile slightly more than controls and made slightly more redundant facial movements.

TABLE 5.3
MEANS, STANDARD DEVIATIONS AND SEPARATE VARIANCE ESTIMATES FOR SCHIZOPHRENICS AND CONTROLS FOR QUANTITATIVE RATINGS OF POSTURE AND GESTURE IN THE SEMI-STANDARDIZED CONVERSATION

<table>
<thead>
<tr>
<th>BEHAVIOURS</th>
<th>MEANS</th>
<th>STANDARD DEVIATIONS</th>
<th>SEPARATE VARIANCE ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>T-VALUE</td>
<td>DEGREES OF FREEDOM</td>
</tr>
<tr>
<td>No. of major posture shifts per min.</td>
<td>Schiz 0.8</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Control 0.4</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>No. of gestures made per min.</td>
<td>Schiz 0.5</td>
<td>0.8</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Control 2.0</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Percentage of time spent making redundant hand movements</td>
<td>Schiz 26%</td>
<td>27.2</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Control 15%</td>
<td>18.0</td>
<td></td>
</tr>
</tbody>
</table>
the number of gestures made during conversation. As gestures were defined as movements of the hands which related to the content of conversation and as schizophrenics spent a considerably smaller proportion of the time talking than the controls (see next section on verbal behaviour), it would be expected that schizophrenics would make fewer gestures. However as the controls spoke less than twice as much as the schizophrenics yet made four times the number of gestures, fewer gestures by the schizophrenics would not seem to be entirely a result of reduced speaking time.

Whilst schizophrenics made fewer hand gestures than the controls, they spent a greater length of time than the controls making hand movements unrelated to the content of the conversation. These consisted of either self-touching or fiddling with the cup from which they were drinking. As they tended to be continuous rather than discrete movements they were timed rather than counted.

Although Trower (1982) found that socially skilled subjects spent more time in posture shifts than unsocially skilled subjects, the schizophrenics in this sample made a greater number of shifts (though non significant) than the controls. Some of these shifts consisted of the subject leaning forward to pick his cup off the table in the role play, or to replace it. As such they may just have been a form of redundant movement rather than as Trower describes, movement related to the content of the conversation. Unfortunately no distinction was made between movements to pick up the cup and other posture shifts.

Quantitative ratings of verbal behaviour

Quantitative ratings of the verbal aspects of the conversation were made in terms of frequency and duration of utterances, latency and pauses, hand-over mechanisms and content. Except where stated, behaviours which were timed are presented as a proportion of the total time and behaviours which were counted as a number per minute in order to make the results comparable.

Frequency and duration of speech

The results of the analysis of the frequency and duration of verbal behaviour is presented in table 5.4. Differences are classified as statements, defined as a single phrase with one emphasis and commentaries, defined as three or more phrases linked together. Two phrases occurring consecutively are classified as two statements. Pauses and hesitations of more than 2 seconds are not included in the duration measures but measured separately.
<table>
<thead>
<tr>
<th>BEHAVIOURS</th>
<th>MEANS</th>
<th>STANDARD DEVIATIONS</th>
<th>SEPARATE VARIANCE ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>T-VALUE</td>
</tr>
<tr>
<td>Percentage of total time speaking</td>
<td>Schiz 38.6%</td>
<td>15.0</td>
<td>-6.5</td>
</tr>
<tr>
<td></td>
<td>Control 63.0%</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>No. of statements per minute</td>
<td>Schiz 0.8</td>
<td>0.5</td>
<td>-0.2</td>
</tr>
<tr>
<td></td>
<td>Control 0.9</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>No. of commentaries per minute</td>
<td>Schiz 0.6</td>
<td>0.4</td>
<td>-5.3</td>
</tr>
<tr>
<td></td>
<td>Control 1.2</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Mean length (in secs) of commentaries (n = 58 (Schiz)) (n = 147 (Controls))</td>
<td>Schiz 17.0</td>
<td>13.6</td>
<td>-2.4</td>
</tr>
<tr>
<td></td>
<td>Control 25.5</td>
<td>10.4</td>
<td></td>
</tr>
<tr>
<td>Duration of response to question 1 (secs)</td>
<td>Schiz 7.7</td>
<td>8.9</td>
<td>-1.8</td>
</tr>
<tr>
<td></td>
<td>Control 14.9</td>
<td>14.0</td>
<td></td>
</tr>
<tr>
<td>Duration of response to question 2 (secs)</td>
<td>Schiz 9.5</td>
<td>2.0</td>
<td>-2.6</td>
</tr>
<tr>
<td></td>
<td>Control 13.7</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>Duration of response to question 3 (secs)</td>
<td>Schiz 5.1</td>
<td>5.3</td>
<td>-1.8</td>
</tr>
<tr>
<td></td>
<td>Control 10.5</td>
<td>12.9</td>
<td></td>
</tr>
<tr>
<td>Duration of response to question 4 (secs)</td>
<td>Schiz 9.4</td>
<td>8.8</td>
<td>-4.5</td>
</tr>
<tr>
<td></td>
<td>Control 26.2</td>
<td>15.1</td>
<td></td>
</tr>
<tr>
<td>Duration of response to question 5 (secs)</td>
<td>Schiz 12.0</td>
<td>13.8</td>
<td>-3.8</td>
</tr>
<tr>
<td></td>
<td>Control 29.6</td>
<td>16.8</td>
<td></td>
</tr>
<tr>
<td>Duration of response to question 6 (secs)</td>
<td>Schiz 13.6</td>
<td>13.3</td>
<td>-3.8</td>
</tr>
<tr>
<td></td>
<td>Control 38.0</td>
<td>27.1</td>
<td></td>
</tr>
<tr>
<td>No. of single-statement responses to questions</td>
<td>Schiz 3.2</td>
<td>1.6</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>Control 0.8</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>No. of two-statement responses to questions</td>
<td>Schiz 0.7</td>
<td>0.9</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>Control 0.8</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>No. of commentaries in response to questions</td>
<td>Schiz 2.0</td>
<td>1.6</td>
<td>-6.1</td>
</tr>
<tr>
<td></td>
<td>Control 4.5</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Hesitations as a percentage of total speaking time</td>
<td>Schiz 5.7</td>
<td>4.2</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>Control 0.8</td>
<td>1.4</td>
<td></td>
</tr>
</tbody>
</table>
There were considerable differences between schizophrenics and controls on all the verbal behaviours in table 5.4 except for the number of statements made overall and the number of responses to questions consisting of two consecutive statements. Schizophrenics made fewer commentaries overall and those they made were shorter. However looking at the mean length of commentaries (which include responses to questions) for schizophrenics (17.0 secs) and at the means for the responses to the questions, it can be seen that the mean of the commentaries is longer than the mean response to any one question. This can be accounted for by the fact that although the schizophrenics would make shorter commentaries in response to questions they tended to make longer commentaries after the period of questioning, often failing to hand over the conversation to the stooges by for example, asking questions. (8 of the schizophrenics made commentaries lasting longer than 30 seconds at this stage).

Examination of the responses to the six specific questions shows that both schizophrenics and controls made the shortest response to question 3, and the longest to question 6 suggesting that although schizophrenics made shorter responses, their pattern of response was similar to that of the controls. The greatest difference in the duration of response was for question 4. This was a somewhat ambiguous question, 'What's it like round where you live?' which could be construed as a request for a description of the physical characteristics or for an opinion of the location. Either way, it was the first question which required some thought. The question which produced least differences was possibly the most straightforward, 'Do you live around here?'

The schizophrenics therefore appear to have coped better when there was a specific and obvious answer to the question than when the question required some deliberation.

The structure of the responses of schizophrenics and normals differed considerably with respect to the number of responses consisting of one word or statement and no elaboration, and the number consisting of a commentary. Many more schizophrenics gave no elaboration and considerably more controls made commentaries. There was, however, little difference between the two groups in the number of responses consisting of two statements.
There were also differences in the proportion of overall time taken up by hesitations with the schizophrenics spending longer time hesitating than the controls. Hesitations may be related to cognitive functioning (Beattie 1984) and this is discussed in section 6.4.3.1.

Initiating, joining in, maintaining and handing-over conversation

The conversation included three possible planned pauses. The first was immediately after the stooges had introduced themselves; if the subject did not open the conversation at this stage he was 'rescued' after 10 seconds' silence by the female stooge asking the male stooge about his arm. The male stooge would then 'invite' the subject to join in the conversation by looking at him and stating he had got knocked off his bicycle. Again, the subject was rescued if he had not made a response after ten seconds. The third planned pause took place after the stooges had asked the subject six questions. This time if the subject did not 'maintain' the conversation, he was rescued after twenty seconds of silence by the female stooge leaving the situation and the role-play ending. Thus there were opportunities for the subject to open, join in and maintain the conversation. The results of comparisons between the schizophrenics and controls on these aspects of the conversation are presented in table 5.5.

<table>
<thead>
<tr>
<th>TABLE 5.5.</th>
<th>MEANS, STANDARD DEVIATIONS AND SEPARATE VARIANCE ESTIMATES FOR SCHIZOPHRENICS AND CONTROLS ON NUMBER OF SECONDS TAKEN TO INITIATE, JOIN IN AND MAINTAIN CONVERSATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEANS</td>
</tr>
<tr>
<td>Opening conversation</td>
<td>Schiz: 2.8, Control: 1.0</td>
</tr>
<tr>
<td>Joining conversation</td>
<td>Schiz: 1.0, Control: 0.0</td>
</tr>
<tr>
<td>Maintaining conversation</td>
<td>Schiz: 9.7, Control: 2.4</td>
</tr>
</tbody>
</table>
Opening, joining and maintaining the conversation all required the subject to take the initiative and on all three counts the schizophrenics tended to take longer than the controls but the differences were extremely slight for joining in, with most subjects joining in spontaneously. The maintaining stage of the conversation seemed to cause the schizophrenics most problems and they took a mean length of 9.7 seconds as compared with 2.4 seconds of the control group to maintain the conversation after the questioning phase. Further examination of the data showed six schizophrenics (as compared with one control) failed to maintain the conversation within 20 seconds after the questioning phase.

The planned pauses described above were devices for looking at opening, joining and maintaining conversation at specific moments in time in the conversation. Maintaining during the course of the conversation was measured by counting the number of attention feedback responses (the 'ems', 'ohs' and 'I sees' described by Trower, Bryant & Argyle (1978), and follow-up statements (similar to Trower et al's reflective statements but including all statements made by the subject which follow on from what the speaker was saying, e.g. 'that sounds really good', 'I think I'd do the same'). Handing over conversation was measured by counting the number of follow-up questions (questions which follow on in terms of topic from the previous statements made) the overall number of questions was also counted. The number per minute of attention feedback responses, follow-up statements, questions and follow-up questions for schizophrenics and controls are presented in table 5.6 below.

**TABLE 5.6.**
Means, standard deviations and separate variance estimates for schizophrenics and controls on variables related to handing-over conversation in semi-standardized conversation test

<table>
<thead>
<tr>
<th>Behaviours</th>
<th>Means</th>
<th>Standard Deviations</th>
<th>Separate Variance Estimate</th>
<th>One Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attention feedback responses (number per minute)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>1.2</td>
<td>0.9</td>
<td>-0.5</td>
<td>42.3</td>
</tr>
<tr>
<td>Control</td>
<td>1.3</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Follow-up statements (number per minute)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>0.5</td>
<td>0.6</td>
<td>-1.7</td>
<td>42.8</td>
</tr>
<tr>
<td>Control</td>
<td>0.8</td>
<td>0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Questions (number per minute)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>1.4</td>
<td>0.8</td>
<td>-2.5</td>
<td>43.0</td>
</tr>
<tr>
<td>Control</td>
<td>2.0</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Follow-up questions (number per minute)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>0.7</td>
<td>0.6</td>
<td>-2.9</td>
<td>42.0</td>
</tr>
<tr>
<td>Control</td>
<td>1.4</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There was very little difference between schizophrenics and controls in the number of attention feedback responses made during the course of the conversation. Schizophrenics were just as good as controls at making the 'ohs' and 'I sees' in conversation. There was also little difference between the two groups in the overall number of single or paired statements made (see table 5.7), however, a greater proportion of those statements were in the form of follow-up statements for the control group than for the schizophrenic group. (For the schizophrenic group more of the single or paired statements were in response to questions than those for the control group).

Schizophrenics asked fewer questions of the stooges than controls and proportionally fewer of those questions were follow-up questions (0.7 follow-up questions out of a total of 1.4 for the schizophrenics and 1.4 follow-up questions out of 2.0 for the controls).

Further analyses of the follow-up questions revealed that the schizophrenics were much less likely than the controls to respond to the stooges' questions with a statement followed by a question. This is shown in the following table.

**TABLE 5.7.**
DIFFERENCES BETWEEN SCHIZOPHRENICS AND CONTROLS IN THE NUMBER OF QUESTIONS ASKED FOLLOWING RESPONSES TO QUESTIONS

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Chi square = 8.99 p 0.01

**Content of Conversation**

The content of the conversation was analysed in terms of the proportion of the subject's total speaking time (excluding questions) spent talking about himself, other people, the environment or general topics. These four categories were chosen with reference to the particular questions the subjects were asked by the stooges. Subjects whose speaking time was less than 60 seconds (seven schizophrenics, one control) were excluded from the analysis for two reasons: statistical - their inclusion would distort the means, and methodological - subjects whose level of communication was so low it did not provide sufficient data for content analysis.
The results of the content analysis are presented in table 5.8.

<table>
<thead>
<tr>
<th>BEHAVIOURS</th>
<th>MEANS</th>
<th>STANDARD DEVIATIONS</th>
<th>SEPARATE VARIANCE ESTIMATES</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>ONE TAIL PROB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of talking time talking about self</td>
<td>Schiz 74.5</td>
<td>27.8</td>
<td>21.4</td>
<td>1.9</td>
<td>21.4</td>
<td>.03</td>
</tr>
<tr>
<td>Control</td>
<td>59.7</td>
<td>15.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of talking time talking about others</td>
<td>Schiz 3.1</td>
<td>10.5</td>
<td>28.2</td>
<td>-1.2</td>
<td>28.2</td>
<td>.13</td>
</tr>
<tr>
<td>Control</td>
<td>6.8</td>
<td>8.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of talking time talking about the environment</td>
<td>Schiz 9.9</td>
<td>15.2</td>
<td>29.5</td>
<td>-0.7</td>
<td>29.5</td>
<td>.25</td>
</tr>
<tr>
<td>Control</td>
<td>13.0</td>
<td>13.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of talking time talking about general topics</td>
<td>Schiz 11.9</td>
<td>16.4</td>
<td>29.3</td>
<td>-1.5</td>
<td>29.3</td>
<td>.07</td>
</tr>
<tr>
<td>Control</td>
<td>19.7</td>
<td>14.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be seen from the above table that there was a tendency for the schizophrenics to spend a greater proportion of speaking time referring to themselves in the conversation than the controls; whereas the controls spent more time proportionally speaking about other people, the environment or general topics (usually a hobby or interest). For example, in answer to the question about hobbies or interests the control might say, 'I used to play a lot of football but busted my ankle a while ago. Although you know I suppose when you thought about it that much, playing squash there's a fair amount of turning and moving and jarring', (s.43); whereas a schizophrenic might say 'Cartoons mainly. I like drawing other things as well but cartoons are the thing I really like doing. I'd say that was my main hobby'. (S.26). The rank ordering of the topics was the same for both groups, with most time spent referring to self, rather than general topics, the environment and with a very small proportion of the total speaking time talking about other people. The overall pattern therefore was the same for both schizophrenics and controls but the schizophrenics tended to make more references to themselves in conversation than the controls.
Qualitative ratings of social skill

Qualitative rating for the conversation were obtained by three independent raters (using a 5-point scale) on overall social skill, appropriateness of verbal content, interest value, interest shown in others, tone of voice, facial expression, looking and posture. Interrater reliability was high for all eight categories ranging from .91 for overall social skill to .84 for posture with a mean of .89. It was therefore considered reasonable to derive a score for each of these seven items by summing the scores of the individual raters. The results of T tests on those items are shown below.

**TABLE 5.9.**
**MEANS, STANDARD DEVIATIONS AND SEPARATE VARIANCE ESTIMATES FOR QUALITATIVE RATINGS OF THE SEMI-STANDARDIZED CONVERSATION**

<table>
<thead>
<tr>
<th></th>
<th>MEANS</th>
<th>STANDARD DEVIATIONS</th>
<th>SEPARATE VARIANCE ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>T-VALUE</td>
</tr>
<tr>
<td>Overall social skill</td>
<td>Schiz</td>
<td>7.2</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>10.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Verbal content</td>
<td>Schiz</td>
<td>10.3</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>12.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Interest value of verbal content</td>
<td>Schiz</td>
<td>8.4</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>11.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Interest shown in others</td>
<td>Schiz</td>
<td>8.2</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>11.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Tone of voice</td>
<td>Schiz</td>
<td>7.1</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>10.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Facial expression</td>
<td>Schiz</td>
<td>6.8</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>10.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Looking</td>
<td>Schiz</td>
<td>7.4</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>11.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Posture</td>
<td>Schiz</td>
<td>6.6</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>9.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>

It can be seen from the above table that on all the qualitative measures, schizophrenics were rated very much lower than the controls. However, for verbal content, the difference was relatively small indicating that although as shown by the quantitative analysis, the schizophrenics spoke considerably less than the controls, and from the table above it can be
seen that the content of the schizophrenics' conversation was less interesting than the controls, it was nevertheless not that much less appropriate, and was not thought by the raters to be in any way bizarre. It can also be seen from the table that on all items other than posture, the standard deviations for the schizophrenic group are larger than those for the controls indicating a greater variability amongst the schizophrenics than amongst the controls.

Association between qualitative ratings of social skill and the quantitative variables in the analysis

The quantitative variables in the analysis had been selected on the basis of their being supposedly the 'elements' of social skill (derived from the empirical and theoretical literature). In order to test out in this study whether or not those variables were associated with judgements of social skill, the quantitative variables were correlated with the ratings of overall social skill.

A high positive correlation would indicate that exhibiting a particular behaviour was important in giving a socially skilled performance whereas failure to do so would be related to poor social skill. A negative correlation would indicate the reverse.

Low correlations could occur either because the behaviour in question is not associated with social skill or because it is such a base-line characteristic that it does not discriminate between socially skilled and socially unskilled subjects. The results of the multiple regression are shown below in table 5.10.
Multiple regression on this data gave the following results.

**TABLE 5.10.**

STANDARD REGRESSION COEFFICIENTS FOR QUANTITATIVE MEASURES OF NON-VERBAL BEHAVIOUR ON OVERALL RATINGS OF SOCIAL SKILL IN THE SEMI-STANDARDIZED CONVERSATION TEST

<table>
<thead>
<tr>
<th>BEHAVIOURS</th>
<th>SOCIAL SKILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>% time looking at female</td>
<td>*0.4138</td>
</tr>
<tr>
<td>% time looking at male</td>
<td>0.2559</td>
</tr>
<tr>
<td>No. of looks towards female (per min.)</td>
<td>0.0735</td>
</tr>
<tr>
<td>No. of looks towards male (per min.)</td>
<td>0.0736</td>
</tr>
<tr>
<td>% time smiling</td>
<td>-0.2028</td>
</tr>
<tr>
<td>No. of smiles (per min.)</td>
<td>0.1036</td>
</tr>
<tr>
<td>Redundant facial movements (per min.)</td>
<td>0.0470</td>
</tr>
<tr>
<td>No. of major posture shifts (per min.)</td>
<td>-0.0047</td>
</tr>
<tr>
<td>No. of gestures (per min.)</td>
<td>*0.3443</td>
</tr>
<tr>
<td>% time in redundant hand movements</td>
<td>-0.1166</td>
</tr>
</tbody>
</table>

* p ≤ .05

The regression as a whole was significant (p ≤ .01) and suggested that judgements of social skill seemed to be mainly determined by the percentage of time looking towards the female, the number of gestures made, and to a lesser extent, the percentage of time looking towards the male.
The correlations of social skill and verbal behaviour are presented below.

**TABLE 5.11.**
CORRELATIONS OF VERBAL ELEMENTS OF BEHAVIOUR WITH JUDGEMENTS OF SOCIAL SKILL FOR ALL SUBJECTS

<table>
<thead>
<tr>
<th>Behaviours</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of total time speaking</td>
<td>.67 **</td>
</tr>
<tr>
<td>Number of statements per min.</td>
<td>.37 **</td>
</tr>
<tr>
<td>Number of commentaries per min.</td>
<td>.70 **</td>
</tr>
<tr>
<td>Mean length (in secs) of commentaries</td>
<td>.19</td>
</tr>
<tr>
<td>Duration of response to question 1</td>
<td>.17</td>
</tr>
<tr>
<td>Duration of response to question 2</td>
<td>.23</td>
</tr>
<tr>
<td>Duration of response to question 3</td>
<td>.04</td>
</tr>
<tr>
<td>Duration of response to question 4</td>
<td>.39 **</td>
</tr>
<tr>
<td>Duration of response to question 5</td>
<td>.30 *</td>
</tr>
<tr>
<td>Duration of response to question 6</td>
<td>.21</td>
</tr>
<tr>
<td>No. of single statement responses to questions</td>
<td>-.55 **</td>
</tr>
<tr>
<td>No. of two-statement responses to questions</td>
<td>-.05</td>
</tr>
<tr>
<td>No. of commentaries in response to questions</td>
<td>.54 **</td>
</tr>
<tr>
<td>Hesitations as a proportion of speaking time</td>
<td>-.56 **</td>
</tr>
<tr>
<td>Pause related to opening the conversation</td>
<td>-.49 **</td>
</tr>
<tr>
<td>Pause related to joining the conversation</td>
<td>-.53 **</td>
</tr>
<tr>
<td>Pause related to maintaining conversation</td>
<td>-.60 **</td>
</tr>
<tr>
<td>Attention feedback responses</td>
<td>.18</td>
</tr>
<tr>
<td>Follow-up statements</td>
<td>.56 **</td>
</tr>
<tr>
<td>Questions</td>
<td>.54 **</td>
</tr>
<tr>
<td>Follow-up questions</td>
<td>.51 **</td>
</tr>
<tr>
<td>Content relating to self</td>
<td>.13</td>
</tr>
<tr>
<td>Content relating to others</td>
<td>.50 **</td>
</tr>
<tr>
<td>Content relating to the environment</td>
<td>.23</td>
</tr>
<tr>
<td>Content relating to general topics</td>
<td>.19</td>
</tr>
</tbody>
</table>

** p $\leq .01$  * p $\leq .05$
From the above table it can be seen that verbal elements highly positively correlated with social skill were; the percentage of total speaking time, the number of statements, follow-up statements and commentaries (both overall and in response to questions), the responses to question 4 ('What's it like round where you live?') and question 6 ('What about hobbies or interests? What sort of things do you do in your spare time?'), and the number of questions and follow-up questions asked. Verbal elements highly negatively correlated with social skill were; single statements in response to questions, pauses in the opening, joining and maintaining phases of the conversation and hesitations during speaking time. The socially skilled subject would therefore tend to talk more than the socially unskilled, to make more statements and commentaries, and to give longer responses to questions, particularly questions 4 and 5. He would be more likely to keep the conversation going and to hand it over by using follow-up statements, questions and follow-up questions. He would also make fewer hesitations when speaking and to make shorter pauses (or not pause at all) before opening or joining in the conversation, and when required to maintain it. The content of conversation of the socially skilled individual tends to be more about others than the unsocially skilled. Otherwise there was little relationship between the content of conversation and social skill.

Other behaviours not correlated with social skill were the length of commentaries, attention feedback responses and responses to questions 1, 2, 3 and 6 (even though there were significant differences between schizophrenics and controls on all of those behaviours except attention feedback responses).

Verbal behaviours which were both highly correlated with social skill and on which there were significant differences between schizophrenics and controls were:

- Percentage of total time speaking
- The number of commentaries made
- The duration of response to questions 4 and 5
- The number of single statements made in answer to questions (negatively correlated)
- The number of commentaries made in response to questions
- Hesitations (negatively correlated)
- Pauses at opening and maintaining phases of the conversation (negatively correlated)
- Follow-up statements
- Questions and follow-up questions

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Verbal behaviours which differentiated between schizophrenics and controls but which were found not to be correlated with social skill were:

- The mean length of commentaries
- The duration of responses to questions 1, 2, 3, 6
- Percentage of time talking about self

Therefore, although the schizophrenics tended to make shorter commentaries, give shorter responses to questions 1, 2, 3, and 6 and spend a greater proportion of speaking time talking about themselves than the controls, these factors do not seem to be important in relation to judgements of overall social skill.

Relationship between ratings of overall social skill in the semi-standardized conversation and the personal characteristics of the sample

In order to examine the relationship between the scores for overall social skill and the personal characteristics of the sample, the SPSS multiple regression procedure was run with the ratings for overall skill derived from the independent raters as the dependent variable. The results are shown in the following table.

**TABLE 5.12.**
**STANDARD REGRESSION COEFFICIENTS FOR PERSONAL CHARACTERISTICS OF THE SAMPLE ON RATING OF SOCIAL SKILL IN THE SEMI-STANDARDIZED CONVERSATION TEST**

<table>
<thead>
<tr>
<th></th>
<th>Overall Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRONICITY</td>
<td>0.0424</td>
</tr>
<tr>
<td>LAST ADMISSION</td>
<td>0.1070</td>
</tr>
<tr>
<td>SOCIAL CLASS</td>
<td>0.3207</td>
</tr>
<tr>
<td>PREMORBID SOCIAL FUNCTIONING</td>
<td>0.1247</td>
</tr>
<tr>
<td>VERBAL ABILITY</td>
<td>0.4732 *</td>
</tr>
</tbody>
</table>

* p \( < .05 \)

The only variable in the analysis which was significant was verbal ability but the regression as a whole was not significant.

**Summary of Results of the Semi-Standardized Conversation Test**

In the Conversation Role-Play Test schizophrenics spent considerably less time looking at the stooges and made fewer glances per minute than the controls although the mean length of glances was similar. The differences were greater in relation to looking at the woman than at the man. The only other non-verbal behaviour which produced large differences was gesture.
Differences between the two groups in smiling, redundant face and hand movements and posture shifts were not significant. The non-verbal behaviours which differentiated between the schizophrenics and controls and which were highly correlated with skill were looking at the female and gesture. For those behaviours which failed to differentiate between the two groups, the correlations were low. This would indicate that looking behaviour and gesture are particularly important in relation to judgements of social skill in schizophrenics.

Analysis of verbal behaviour showed that schizophrenics spent proportionally considerably less time talking than did the controls. They made fewer and shorter commentaries, their responses to all six questions were significantly shorter, they gave more single statement answers and fewer commentaries in response to the questions and spent a far higher proportion of speaking time hesitating. The schizophrenics also tended to be slower in initiating conversation and in maintaining it when required (by the third planned pause). They used fewer questions and follow-up questions than the controls and also fewer follow-up statements. Although both groups spent the greatest proportion of speaking time talking with reference to themselves, the schizophrenics did so significantly more than the controls.

Verbal behaviours which differentiated between the two groups and which correlated highly with ratings of social skill were: the percentage of total time spent speaking, the number (although not the length) of commentaries, the duration of response to questions (although not 1, 2, 3 and 6), the number of single statement answers and number of commentaries made in response to questions, hesitation in or failure to open and maintain the conversation, the number of questions and follow-up questions asked and the number of follow-up statements made. It would therefore seem that these behaviours are particularly relevant to the social skill problems of schizophrenics.

Analysis of the qualitative ratings made by three independent raters of overall social skill and various aspects of verbal and non-verbal behaviour showed that there were significant differences between the schizophrenics and controls on every measure, but the differences were least for appropriateness of verbal content (although fairly large for the interest value of the content).
Examination of the personal characteristics of the sample in relation to ratings of social skill showed that only verbal ability made a significant contribution to the multiple regression which, as a whole, was not significant.

N.B. The results of the Semi-Standardized Conversation Test are discussed in section 6.2.1. and 6.2.3. and the test critically examined in section 6.4.3.1.

5.3. GOAL/BEHAVIOUR ROLE-PLAY TEST
This test was adapted from the BAT(R) (Eisler, Hersen, Miller & Blanchard 1975) and was used to look at the cognitive and behavioural aspects of social skill in assertive situations (see section 4.4.2). Eight situations were presented to the subject: four involving a male stooge, and four a female; four in which the stooge represented a person familiar with the subject, four unfamiliar; four situations suggesting positive assertion, four negative. The subject was required to state what he would want to do in that situation (his goal) and then the scene was enacted in role-play.

The results were analyzed in the following way. Was the goal assertive? did the subject make any demand for a response from the other person? In the negative scenes was there a request for any new behaviour from the other person? Did the subject comply with the demand/request? In the positive scenes: Did the subject show appreciation and was there any spontaneous positive behaviour? Was any physical contact made by the subject? In addition qualitative ratings were made by independent raters of non-verbal behaviour, voice tone, verbal content and overall skill; and the number of statements made by the subjects were counted (see section 4.4.2.). Comparisons of the schizophrenics and controls gave the following results.

1. Goals
The subjects' goals were rated as assertive, partly assertive, or unassertive (see table 5.12). There were three cases where the subject was unable to specify his goal. These have not been included in the analysis in table 5.12.
### SITUATION 1
(male, positive, familiar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>partly assertive</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>assertive</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.04563$
N.S.

### SITUATION 2
(male, positive, unfamiliar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>partly assertive</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>assertive</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.08691$
N.S.

### SITUATION 3
(male, negative, familiar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>partly assertive</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>assertive</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.05728$
N.S.

### SITUATION 4
(male, negative, unfamiliar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>partly assertive</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>assertive</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>22</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.28926$
p = 0.0124

### SITUATION 5
(female, positive, familiar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>partly assertive</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>assertive</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.00395$
N.S.

### SITUATION 6
(female, positive, unfamiliar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>partly assertive</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>assertive</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.04938$
N.S.

### SITUATION 7
(female, negative, familiar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>partly assertive</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>assertive</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.06321$
N.S.

### SITUATION 8
(female, negative, unfamiliar)

<table>
<thead>
<tr>
<th></th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-assertive</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>partly assertive</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>assertive</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau $C = 0.57086$
p = 0.0005
It can be seen from the above table that on all the positive assertive situations and for both male and female negative assertive situations, there were virtually no differences between the two groups. However for the negative, unfamiliar scenes (both male and female) there was a very strong tendency for the goals of the schizophrenics to be less assertive than those of the normal group and the differences between the two groups for these two scenes were significant.

2. **Number of statements made by subject**

The number of statements made by the subjects during the role-play were counted.
TABLE 5.13.
COMPARISON OF SCHIZOPHRENICS AND CONTROLS IN THE
NUMBER OF STATEMENTS EMITTED DURING ROLE-PLAY

<table>
<thead>
<tr>
<th>SITUATION 1 (male, positive, familiar)</th>
<th>SITUATION 2 (male, positive, unfamiliar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>1-2 statements 16</td>
<td>10</td>
</tr>
<tr>
<td>3-4 statements 7</td>
<td>7</td>
</tr>
<tr>
<td>5 + statements 0</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL 23</td>
<td>22</td>
</tr>
<tr>
<td>Kendall's tau C = 0.31012</td>
<td>p = 0.0215</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SITUATION 3 (male, negative, familiar)</th>
<th>SITUATION 4 (male, negative, unfamiliar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>1-2 statements 11</td>
<td>6</td>
</tr>
<tr>
<td>3-4 statements 9</td>
<td>6</td>
</tr>
<tr>
<td>5 + statements 3</td>
<td>10</td>
</tr>
<tr>
<td>TOTAL 23</td>
<td>22</td>
</tr>
<tr>
<td>Kendall's tau C = 0.34765</td>
<td>p = 0.0169</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SITUATION 5 (female, positive, familiar)</th>
<th>SITUATION 6 (female, positive, unfamiliar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>1-2 statements 18</td>
<td>8</td>
</tr>
<tr>
<td>3-4 statements 5</td>
<td>12</td>
</tr>
<tr>
<td>5 + statements 0</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL 23</td>
<td>22</td>
</tr>
<tr>
<td>Kendall's tau C = 0.43852</td>
<td>p = 0.0018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SITUATION 7 (female, negative, familiar)</th>
<th>SITUATION 8 (female, negative, unfamiliar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>1-2 statements 10</td>
<td>6</td>
</tr>
<tr>
<td>3-4 statements 11</td>
<td>10</td>
</tr>
<tr>
<td>5 + statements 2</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL 23</td>
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</tr>
<tr>
<td>Kendall's tau C = 0.25284</td>
<td>p = 0.0573</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SITUATION 6 (female, positive, unfamiliar)</th>
<th>SITUATION 8 (female, negative, unfamiliar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>1-2 statements 14</td>
<td>11</td>
</tr>
<tr>
<td>3-4 statements 9</td>
<td>9</td>
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<tr>
<td>5 + statements 0</td>
<td>2</td>
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<tr>
<td>TOTAL 23</td>
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</tr>
<tr>
<td>Kendall's tau C = 0.30420</td>
<td>p = 0.0304</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SITUATION 8 (female, negative, unfamiliar)</th>
<th>SITUATION 9 (female, negative, unfamiliar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>1-2 statements 13</td>
<td>5</td>
</tr>
<tr>
<td>3-4 statements 8</td>
<td>12</td>
</tr>
<tr>
<td>5 + statements 2</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL 23</td>
<td>22</td>
</tr>
<tr>
<td>Kendall's tau C = 0.36938</td>
<td>p = 0.0105</td>
</tr>
</tbody>
</table>
There was a strong tendency for schizophrenics to make fewer statements in all the situations than the controls. This difference was significant for all of the four situations involving a male interpersonal partner and for three of the situations with a female partner. The one situation where there was very little difference between the two groups was the situation which was the most formal and structured, the restaurant scene. In this type of situation there are certain 'rules' of social behaviour (see section 1.6.2) which are fairly easily identifiable and can be learnt. This could possibly account for the fact that schizophrenics and controls, with respect to the amount spoken, performed equally well.

3. Response demand
This referred to whether or not the subject made it necessary for the interpersonal partner to make a verbal response to him (see table 5.14.).
TABLE 5.14.
COMPARISON OF SCHIZOPHRENICS AND CONTROLS IN
RESPONSE DEMANDS IN GOAL/BEHAVIOUR ROLE-PLAY TEST

<table>
<thead>
<tr>
<th>SITUATION 1</th>
<th>SITUATION 2</th>
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</thead>
<tbody>
<tr>
<td>(male, positive, familiar)</td>
<td>(male, positive, unfamiliar)</td>
</tr>
<tr>
<td>Schiz</td>
<td>Schiz</td>
</tr>
<tr>
<td>No demand made</td>
<td>No demand made</td>
</tr>
<tr>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Demand made</td>
<td>Demand made</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
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<tr>
<td>23</td>
<td>22</td>
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</tbody>
</table>

Kendall's tau C = 0.18765
N.S.

<table>
<thead>
<tr>
<th>SITUATION 3</th>
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<tbody>
<tr>
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<td>(male, negative, unfamiliar)</td>
</tr>
<tr>
<td>Schiz</td>
<td>Schiz</td>
</tr>
<tr>
<td>No demand made</td>
<td>No demand made</td>
</tr>
<tr>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>Demand made</td>
<td>Demand made</td>
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<tr>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
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<tr>
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<td>23</td>
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</tbody>
</table>

Kendall's tau C = 0.18502
N.S.

<table>
<thead>
<tr>
<th>SITUATION 5</th>
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<td>(female, positive, unfamiliar)</td>
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<tr>
<td>Schiz</td>
<td>Schiz</td>
</tr>
<tr>
<td>No demand made</td>
<td>No demand made</td>
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<tr>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Demand made</td>
<td>Demand made</td>
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<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
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<tr>
<td>23</td>
<td>23</td>
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</tbody>
</table>

Kendall's tau C = 0.41086
p = .0008
N.S.

<table>
<thead>
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<th>SITUATION 7</th>
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</thead>
<tbody>
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<td>(female, negative, familiar)</td>
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<tr>
<td>Schiz</td>
<td>Schiz</td>
</tr>
<tr>
<td>No demand made</td>
<td>No demand made</td>
</tr>
<tr>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Demand made</td>
<td>Demand made</td>
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<td>5</td>
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<tr>
<td>TOTAL</td>
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<tr>
<td>23</td>
<td>23</td>
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</tbody>
</table>

Kendall's tau C = 0.00988
N.S.
There was little difference between the schizophrenics and controls with respect to whether or not they demanded a response from the interpersonal partner in the scenes except for situation 5 (female, positive, familiar). In this scene the subject was required to admire a garment that his wife/girlfriend had just bought. Significantly more of the normals demanded a response from the partner which, in eight of the ten cases, took the form of asking how much it had cost. This question is more likely to be asked by a married man (usually the principal wage-earner) of his wife rather than by an adult son of his mother or a man of his girlfriend. Differences between the groups may therefore be attributed to differences in marital status (a high proportion of the controls being married, all of the schizophrenics being single) rather than associated with the schizophrenia.

4. Compliance (negative situations only)
This referred to whether or not the subject complied to the unreasonable request or behaviour of the interpersonal partner in the negative assertive scenes (see table 5,15.).

TABLE 5.15.
COMPARISON OF SCHIZOPHRENICS AND CONTROLS ON COMPLIANCE IN NEGATIVE SCENES

<table>
<thead>
<tr>
<th>SITUATION 3</th>
<th>SITUATION 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(male, negative, familiar)</td>
<td>(male, negative, unfamiliar)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schiz</td>
</tr>
<tr>
<td>Compliant</td>
<td>9</td>
</tr>
<tr>
<td>Non-compliant</td>
<td>14</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
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</tbody>
</table>

Kendall's tau C = 0.20938 N.S.

<table>
<thead>
<tr>
<th>SITUATION 7</th>
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</thead>
<tbody>
<tr>
<td>(female, negative, familiar)</td>
<td>(female, negative, unfamiliar)</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schiz</td>
</tr>
<tr>
<td>Compliant</td>
<td>2</td>
</tr>
<tr>
<td>Non-compliant</td>
<td>21</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
</tr>
</tbody>
</table>

Kendall's tau C = -0.00790 N.S.

Kendall's tau C = 0.00790 N.S.
There was little difference between the schizophrenics and controls as to whether they complied with the request or behaviour of the other in the negative scenes although there was a tendency, more marked in the male scenes, for the schizophrenics to be more compliant than the controls. The outcome in terms of compliance was reasonably consistent with the subjects' goals. Examination of the data showed that except for situation three, those who had unassertive goals were more compliant and those who had partly assertive goals were divided between compliance and non-compliance with the greater number of both schizophrenics and controls being non-compliant. In situation 3 (being asked to stay late again by the boss) those schizophrenics who had had a partly assertive goal (to negotiate) ended up complying whereas the controls who had had a partly assertive goal ended up not complying.

5. Requesting new behaviour (negative situations only)

This referred to whether or not the subject requested that the interpersonal partner change his or her behaviour in some way in the negative assertive scenes (e.g. to move to another seat in situation 4, to go to the back of the queue in situation 8) (see table 5.16.).

TABLE 5.16.
DIFFERENCES BETWEEN SCHIZOPHRENICS AND CONTROLS IN REQUESTING NEW BEHAVIOUR IN THE NEGATIVE SCENES OF THE GOAL/BEHAVIOUR ROLE-PLAY TEST

<table>
<thead>
<tr>
<th>SITUATION 3</th>
<th>SITUATION 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(male, negative, familiar)</td>
<td>(male, negative, unfamiliar)</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>No request made</td>
<td>18</td>
</tr>
<tr>
<td>Request made</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
</tr>
</tbody>
</table>

Kendall's tau C = 0.37333
p = 0.0057

Kendall's tau C = 0.23091
p = .0500

<table>
<thead>
<tr>
<th>SITUATION 7</th>
<th>SITUATION 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>(female, negative, familiar)</td>
<td>(female, negative, unfamiliar)</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>No request made</td>
<td>20</td>
</tr>
<tr>
<td>Request made</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
</tr>
</tbody>
</table>

Kendalls tau C = 0.27852
N.S.

Kendall's tau C = 0.20346
N.S.
There was a strong tendency in all the scenes for more of the controls to request a change in the behaviour of the partner than the schizophrenics. This was significant in the scenes requiring assertive behaviour directed towards the male partner in both the familiar and unfamiliar scenes.

Comparison with the figures on compliance showed that the number of schizophrenics whose non-compliance was accompanied by a request for a change of behaviour from the partner was fewer than the controls. Of the 14 schizophrenics who in situation 3 did not comply, only five made a request that the partner change as compared with 13 of the 18 non-compliant controls. For situation 4 only five of the 17 non-compliant schizophrenics requested change compared with 13 of the 21 non-compliant controls; for situation 7, three of the 21 schizophrenics and nine of the 19 controls and for situation 8, 12 of the 19 schizophrenics and 15 of the controls made requests. It would therefore seem that the schizophrenics, although almost as likely to refuse to comply in negative assertive situations, are less likely to accompany their non-compliance with a request that the other person makes some change. This is consistent with the differences found in the number of statements made by the two groups.

6. Appreciation shown (positive situations only)

This refers to whether or not appreciation was shown verbally (see table 5.17.).

<table>
<thead>
<tr>
<th>SITUATION 1</th>
<th>SITUATION 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(male, positive, familiar)</td>
<td>(male, positive, unfamiliar)</td>
</tr>
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<td></td>
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<tr>
<td>No appreciation</td>
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<td>Control</td>
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<tr>
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<td></td>
<td>Schiz</td>
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</tbody>
</table>
In all but three cases (two schizophrenics and one control), appreciation was shown by both schizophrenics and controls in all the scenes.

7. Spontaneous positive behaviour
This refers to the offer of the subject to do something extra which is not demanded by the situation itself, e.g. to buy the partner a drink, to recommend the restaurant to others.

TABLE 5.18.
COMPARISON OF SCHIZOPHRENICS AND CONTROLS IN SPONTANEOUS POSITIVE BEHAVIOUR IN GOAL/BECOUIOUR ROLE-PLAY TEST

<table>
<thead>
<tr>
<th>SITUATION 1</th>
<th>SITUATION 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(male, positive, familiar)</td>
<td>(male, positive, unfamiliar)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>No spontaneous behaviour</td>
<td>No spontaneous behaviour</td>
</tr>
<tr>
<td>Schiz: 22 Control: 17</td>
<td>Schiz: 15 Control: 9</td>
</tr>
<tr>
<td>Spontaneous behaviour</td>
<td>Spontaneous behaviour</td>
</tr>
<tr>
<td>Schiz: 1 Control: 5</td>
<td>Schiz: 8 Control: 13</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
</tr>
<tr>
<td>Schiz: 23 Control: 22</td>
<td>Schiz: 23 Control: 22</td>
</tr>
</tbody>
</table>

Kendall's tau C = 0.18370  
N.S.

Kendall's tau C = 0.22727  
N.S.

There was little difference between the schizophrenics and controls but with slightly more of the controls offering something 'extra' in the male scenes.

8. Physical contact
This refers to whether or not the subject touched his partner with his hand or arm. Touching took place only in the positive scenes so only data for these four scenes is presented.
Table 5.19. Differences between schizophrenics and controls in physical contact in goal/behaviour role-play test.

<table>
<thead>
<tr>
<th>Situation 1</th>
<th>(male, positive, familiar)</th>
<th></th>
<th>Situation 2</th>
<th>(male, positive, unfamiliar)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Schiz</td>
<td>Control</td>
<td></td>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>No contact</td>
<td>22</td>
<td>17</td>
<td></td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Contact</td>
<td>1</td>
<td>5</td>
<td></td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
<td></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau C = 0.1873  
P = 0.0365

Kendall's tau C = 0.36364  
P = 0.0022

Very few of the subjects touched their partner during role-play but the controls touched more than the schizophrenics. This was particularly noticeable in the scenes where the interpersonal partner was male and usually took the form of a pat on the back or a brief touch on the shoulder for scene 2 and a handshake with the boss in scene 1.

Qualitative ratings
Qualitative ratings were made by three independent raters of overall social skill, non-verbal behaviour, vocal tone and verbal content for all eight scenes.

Interrater reliability (on the SPSS reliability sub programme) was found to be high with mean interrater reliability for all situations of .87 for overall social skill and non-verbal behaviour, .86 for voice tone and .80 for verbal content.
The following table shows Kendall's \( \tau_C \) and the values of \( P \) when schizophrenics are compared with controls on the qualitative ratings of the goal/behaviour role-play test. Scores were obtained by summing the three independent raters' scores for each category.

<table>
<thead>
<tr>
<th>SITUATION</th>
<th>OVERALL SOCIAL SKILL</th>
<th>NON-VERBAL BEHAVIOUR</th>
<th>VOCAL TONE</th>
<th>CONTENT OF SPEECH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kendall's ( \tau_C )</td>
<td>( p )</td>
<td>Kendall's ( \tau_C )</td>
<td>( p )</td>
</tr>
<tr>
<td>1</td>
<td>.67</td>
<td>.0001</td>
<td>.72</td>
<td>.0000</td>
</tr>
<tr>
<td>2</td>
<td>.69</td>
<td>.0000</td>
<td>.72</td>
<td>.0000</td>
</tr>
<tr>
<td>3</td>
<td>.62</td>
<td>.0002</td>
<td>.73</td>
<td>.0000</td>
</tr>
<tr>
<td>4</td>
<td>.78</td>
<td>.0000</td>
<td>.80</td>
<td>.0000</td>
</tr>
<tr>
<td>5</td>
<td>.73</td>
<td>.0000</td>
<td>.69</td>
<td>.0000</td>
</tr>
<tr>
<td>6</td>
<td>.68</td>
<td>.0000</td>
<td>.69</td>
<td>.0000</td>
</tr>
<tr>
<td>7</td>
<td>.57</td>
<td>.0004</td>
<td>.64</td>
<td>.0001</td>
</tr>
<tr>
<td>8</td>
<td>.57</td>
<td>.0005</td>
<td>.79</td>
<td>.0000</td>
</tr>
</tbody>
</table>

It can be seen from the above table that there were considerable differences between the schizophrenics and controls on all the ratings for every scene except for the rating of content of speech for the last scene (female, negative, unfamiliar). The differences between groups for the content of speech, however, was for every situation less than the differences in vocal tone or non-verbal behaviour. It can also be seen from the table that the differences in overall social skill are in every case less than the differences in non-verbal behaviour and vocal tone, but greater than the differences in content of speech, indicating that the qualitative ratings of overall social skill can be treated with some measure of confidence.
Performance on different types of situations
In order to examine whether the scores were influenced by the various types of situation the results were analyzed by types of situation. In order to do this the overall social skill ratings for the eight situations were correlated. As the scores were highly intercorrelated (all correlations were higher than .54, and 18 above .71, it seemed reasonable to derive scores for the types of situations by summing the mean scores of the situations in the particular category. Scores were therefore calculated for positive and negative scenes, for familiar and unfamiliar and for male and female scenes. The mean scores for schizophrenics and controls are compared below.

<table>
<thead>
<tr>
<th>TYPES OF SITUATION</th>
<th>SCHIZ</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>7.8</td>
<td>12.2</td>
</tr>
<tr>
<td>Negative</td>
<td>6.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Difference</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Male</td>
<td>7.1</td>
<td>11.1</td>
</tr>
<tr>
<td>Female</td>
<td>7.2</td>
<td>11.7</td>
</tr>
<tr>
<td>Difference</td>
<td>0.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Familiar</td>
<td>7.1</td>
<td>11.0</td>
</tr>
<tr>
<td>Unfamiliar</td>
<td>7.2</td>
<td>11.7</td>
</tr>
<tr>
<td>Difference</td>
<td>0.1</td>
<td>0.7</td>
</tr>
</tbody>
</table>

The pattern of the scoring is absolutely consistent for schizophrenics and controls with both groups scoring lower on the negative scenes, the male scenes and on the familiar scenes. The category which most influenced social skill for both schizophrenics and controls was that of positive/negative. What is interesting however, is that the control group show much more variation in their level of skill with a difference of 1.7 between positive and negative scenes, 0.6 between male and female scenes and 0.7 between familiar scenes, as compared with the schizophrenics' difference of 1.3 between positive and negative scenes and 0.1 between male and female, familiar and unfamiliar scenes. It would therefore seem that
the control group's level of skill was much more influenced by the type of situation than schizophrenic groups whose (lower) level of skill was more consistent across situations. This finding is entirely consistent with the current view that social skill is situationally specific and Trower's (1982) suggestion that socially skilled people are more likely to vary their behaviour across situations than socially unskilled people.

A four-way analysis of variance with three repeated measures showed that there were significant main effects between the two groups and between positive/negative (p≤.01) and familiar/unfamiliar (p≤.05). There was also a significant (p≤.01) two way effect between positive/negative and male/female. (See appendix 5.7. for summary table).

Association between qualitative ratings of social skill and quantitative variables in the analysis

Whereas many of the quantitative measures used in the Goal/Behaviour Role-Play Test clearly differentiated between schizophrenics and controls, this does not mean that they are necessarily associated with social skill. Indeed the variables concerned with demand for verbal response, spontaneous positive behaviour, compliance and refusing new behaviour are derived from a test of assertion and may not be related to social skill. In order to establish which of the selected variables are associated with social skill, the overall ratings of social skill were correlated with the quantitative variables and by doing this it was hoped to get some suggestion of which variables are important to the concept of social skill. The results of the regression analysis are presented below.

TABLE 5.22.
STANDARD REGRESSION COEFFICIENTS FOR QUANTITATIVE MEASURES OF NON-VERBAL BEHAVIOUR ON OVERALL SOCIAL SKILL IN THE GOAL/BEHAVIOUR ROLE-PLAY TEST

<table>
<thead>
<tr>
<th>BEHAVIOURS (positive situations)</th>
<th>SOCIAL SKILL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SIT.1</td>
</tr>
<tr>
<td>No. of statements</td>
<td>.3169*</td>
</tr>
<tr>
<td>Demand for verbal res.</td>
<td>.1293</td>
</tr>
<tr>
<td>Physical contact</td>
<td>.3328</td>
</tr>
<tr>
<td>Spontaneous pos. beh.</td>
<td>-.1635</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BEHAVIOURS (negative situations)</th>
<th>SOCIAL SKILL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SIT.3**</td>
</tr>
<tr>
<td>No. of statements</td>
<td>.3607*</td>
</tr>
<tr>
<td>Demand for verbal res.</td>
<td>-.1065</td>
</tr>
<tr>
<td>Compliance</td>
<td>.0989</td>
</tr>
<tr>
<td>Request new beh.</td>
<td>.2635</td>
</tr>
</tbody>
</table>

* p≤.05    ** p≤.01
The regressions as a whole were significant in six out of the eight scenes.

Number of Statements

It would seem from the above table that the only quantitative variable which was consistently strongly associated with social skill (in seven of the eight situations) was the number of statements made. Subjects rated high on social skill made more statements in response to the interpersonal partner than subjects rated low on skill. The number of statements issued would therefore seem to be an important component of social skill.

The pattern is less clear for the other variables of demand for verbal response, physical contact, spontaneous positive behaviour, compliance and request for new behaviour. These (with the exception of physical contact) were the variables derived from the BAT(R), a test of assertiveness. The raters, however, were rating not assertiveness but social skill. They were all working clinically within the social skill framework and were given Argyle & Kendon's (1967) model of social skill prior to rating. They were told the subjects' goals prior to rating and were instructed to take these into account when making the ratings. This meant that the subject could have an unassertive goal (e.g. to give in gracefully when the woman in the supermarket asked to go in front) and carry out that goal skilfully. Implicit in the assertion model, however, is the assumption that in order to be skilful, the response must be assertive.

Low correlations between social skill and the quantitative variables therefore could be a result of those variables not being components of social skill in these situations. Alternatively, examination of the crosstabulations will show that some of the variables are concerned with such base-line behaviours that all or most of the sample engaged in them (e.g. showing appreciation). Correlations between social skill and showing appreciation would therefore of necessity be low, yet this would not mean that showing appreciation was not an important component of social skill. Clearly, the absence or presence of appreciation is not a sufficiently sensitive measure to discriminate between populations.

Correlations would also be low if few or none of the sample engaged in that activity such as physical contact in situation 6. In these cases it can be argued that the presence of such a behaviour is not a component of social skill.
Demand for verbal response
In six out of the eight scenes 10 or more subjects demanded a verbal response from their partner but demand for verbal response was not significant in the regression analysis. In two of the situations (female positive, unfamiliar and female negative unfamiliar), only three subjects in each situation made a demand. Therefore demand for a verbal response does not seem to be a component of social skill.

Compliance (negative scenes)
Non-compliance was strongly associated with social skill in the negative assertive situation involving interpersonal partners who were male and unfamiliar but not in the other situations. The low correlations for situations 7 (female negative familiar) and 8 (female negative unfamiliar) could be accounted for by the fact that most of the subjects were non-compliant. Therefore no conclusions can be drawn as to whether or not compliance is a component of social skill for those situations.
Non-compliance in negative assertive situations seems to be an important aspect of social skill when the interpersonal partner is male and unfamiliar but possibly less so if the partner is female and unfamiliar.

Request for new behaviour (negative scenes)
Request for new behaviour was not significant in the regression. The scores, however, were more normally distributed than those for compliance which would indicate that the low correlations reflected a genuine low association between social skill and requesting new behaviour.

Showing appreciation (positive scenes)
Almost all the subjects in all the situations showed appreciation verbally. Correlating appreciation with social skill would therefore not be appropriate as the correlation coefficients would necessarily be low. As this variable did not discriminate between subjects it is not possible to assess its relationship to social skill.

Spontaneous positive behaviour
Showing spontaneous positive behaviour was not found to be significant in the regression analysis. Very few of the sample emitted spontaneous positive behaviour in situation 1 and 5 (six and four respectively) and although there was discrimination on this variable for situation 6, the correlation with social skill was low. Showing spontaneous positive behaviour therefore does not seem to be an important component of social skill in positive assertive situations.
There are therefore a number of issues that can be raised in relation to the quantitative variables selected for the analysis of the Goal/Behaviour Role-Play Test. It has been argued that some were base-line characteristics and failed to discriminate between sub-samples. The BAT(R) (from which these measures were derived) was designed for an in-patient psychiatric population who, it is reasonable to suppose, may have been less able socially than the outpatient sample in this study. Measures which failed to discriminate in this study may therefore have done so had the subjects been less able and still in hospital.

Other behaviours selected from the BAT(R) appeared irrelevant as they were exhibited by very few of the sample. This could possibly be accounted for by cultural differences between the American sample for whom this test was designed, and on whom it was tested and the British sample in this research.

There were yet other variables which, although they did discriminate between sub-samples, were unrelated to social skill, e.g. showing spontaneous positive behaviour in situation 6 (being asked by a waitress if the subject had enjoyed his dinner), although Eisler, Hersen, Miller & Blanchard (1975) demonstrated that there were significant differences between high and low assertive groups in respect of their demonstration of spontaneous positive behaviour. Spontaneous positive behaviour may therefore be related to assertiveness but not to skill. Although in most of the cases the quantitative variables accounted for a significant proportion of the variance, in others it would appear that assertiveness may be different from social skill behaviourally as well as conceptually.
Relationship between ratings of social skill in the Goal/Behaviour Role-Play Test and of social skill in the Semi-Standardized Conversation Test

The correlation between the scores on the Goal/Behaviour Role-Play Test and those for the Semi-Standardized Conversation Test was .69. This is high considering that the Goal/Behaviour Role-Play Test was related to assertive behaviours and the ratings were made taking into account the subjects' goals, whereas the Semi-Standardized Conversation Test was a test of conversation skills in which the subjects' goal had been supplied by the researcher (to start and maintain the conversation). It would therefore seem that there is a strong association between assertive skills and conversation skills.

Relationships between ratings of overall social skill in the Goal/Behaviour Role-Play Test and personal characteristics of the sample

In order to examine the relationship between the scores for overall skill and the personal characteristics of the sample, the SPSS multiple regression procedure was run with the rating for overall social skill derived from the three independent raters as the dependent variable. The results are shown in the following table.

**TABLE 5.23. STANDARDIZED REGRESSION COEFFICIENTS OF SAMPLE ON RATINGS OF SOCIAL SKILL IN THE GOAL/BEHAVIOUR ROLE-PLAY TEST**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Social Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronicity</td>
<td>0.0612</td>
</tr>
<tr>
<td>Last Admission</td>
<td>0.0944</td>
</tr>
<tr>
<td>Social Class</td>
<td>0.1456</td>
</tr>
<tr>
<td>Premorbid S.F.</td>
<td>0.6020*</td>
</tr>
<tr>
<td>Verbal Ability</td>
<td>0.2959</td>
</tr>
</tbody>
</table>

* * p < 0.05

The personal characteristics of the sample listed above accounted for 46% of the variance on the scores of the Goal/Behaviour Role-Play Test and the regression as a whole was just significant (F = 2.9). The only variable however which made any appreciable difference to the regression was
premorbid social functioning. Those subjects who had better premorbid social functioning scored higher in social skill in this test.

Summary of results of the Goal/Behaviour Role-Play Test
There was little difference between the goals of the schizophrenics and controls for the positive assertion scenes but for the negative scenes, particularly those involving unfamiliar figures, the goals of the schizophrenics were less assertive than those of the controls. In all the situations there was a strong tendency for schizophrenics to emit fewer statements than controls and this was significant (p < .05) in six of the situations. There was however, little difference between the two groups when it came to demanding a verbal response from the interpersonal partner except for the scene which required the subject to admire a new dress (situation 5), when there was a tendency for the controls to ask how much it had cost! In the negative scenes schizophrenics were only slightly less compliant than the controls, but when it came to requesting some change in the behaviour of the interpersonal partner schizophrenics did this less than the controls, and the difference was significant (p < .05) for the scenes involving male partners. All the subjects expressed appreciation verbally in the positive scenes but there was a slight tendency for schizophrenics to exhibit spontaneous positive behaviour less than the controls. They also touched their interpersonal partner less than the controls.

Qualitative ratings showed significant differences on all measures for all scenes with the exception of content of speech for situation 8. There was also a consistent pattern in the differences, with differences between the ratings for the content of speech being less than for non-verbal behaviour and vocal tone whilst the differences between the groups for overall social skill was greater than for content of speech but less than either non-verbal behaviour or vocal tone.

Looking at the different types of situation, the greatest differences in the scores was between positive and negative situations, the differences being less for male/female, familiar/unfamiliar. There were also greater differences between the scores for the different types of scene for the controls than for the schizophrenics, indicating that the controls' level of skill varies over different types of situation more than the schizophrenics'.
Correlations between the overall rating of social skill and the quantitative measures showed a strong association between social skill and the number of statements made for all scenes. Some of the measures proved insufficiently sensitive to discriminate between the two groups whilst others seemed irrelevant as none or few of the sample engaged in the activity in question. There were also other variables which, whilst differentiating schizophrenics from controls, did not seem to be related to social skill. It would therefore seem that whilst some of the quantitative variables might be related to assertion, they may not necessarily be components of social skill.

Examination of the personal characteristics of the sample in relation to ratings of social skill showed that although the regression was significant as a whole, only premorbid social functioning made any appreciable contribution to the regression, i.e. those who had functioned better before the onset of schizophrenia got higher scores of social skill on the Goal/Behaviour Role-Play Test.

The results of the Goal/Behaviour Role-Play Test are discussed in section 6.2.1, 6.2.3 and 6.2.6 and the test critically examined in section 6.4.3.2.

5.4. SOCIAL COPING QUESTIONNAIRE

5.4.1. SUBJECTS' VERSION

The Social Coping Questionnaire (see section 4.4.3.) was designed to examine the differences between schizophrenics and non-schizophrenics in relation to their beliefs about their ability to cope with various aspects of social behaviour and social functioning. The relatives' version of the questionnaire which covered the same items was designed to assess differences between the schizophrenic's beliefs about his own coping and the relatives' perception of the schizophrenic's coping.

The following table shows the mean scores, standard deviation for the social coping items for the schizophrenic group and the control group separately, and also the results of a one-tailed t-test on the difference between the means.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>SUBJECT</th>
<th>MEAN</th>
<th>SD</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>ONE-TAIL PROB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking down street</td>
<td>Schiz</td>
<td>4.65</td>
<td>0.57</td>
<td>-2.91</td>
<td>22.00</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>5.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looking at people during conversation</td>
<td>Schiz</td>
<td>3.70</td>
<td>1.06</td>
<td>-3.33</td>
<td>34.88</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.55</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People looking at you during conversation</td>
<td>Schiz</td>
<td>4.00</td>
<td>0.88</td>
<td>-3.99</td>
<td>32.25</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.77</td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening a conversation</td>
<td>Schiz</td>
<td>3.09</td>
<td>1.04</td>
<td>-2.90</td>
<td>42.78</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.00</td>
<td>1.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joining in a conversation</td>
<td>Schiz</td>
<td>3.48</td>
<td>0.85</td>
<td>-4.91</td>
<td>41.50</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.60</td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keeping a conversation going</td>
<td>Schiz</td>
<td>3.48</td>
<td>0.85</td>
<td>-4.30</td>
<td>39.41</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.41</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking to people when you are interested in</td>
<td>Schiz</td>
<td>4.61</td>
<td>0.50</td>
<td>-2.17</td>
<td>42.48</td>
<td>0.017</td>
</tr>
<tr>
<td>or know something about the subject</td>
<td>Control</td>
<td>4.91</td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking to people when you are not</td>
<td>Schiz</td>
<td>2.52</td>
<td>1.24</td>
<td>-4.38</td>
<td>37.16</td>
<td>0.000</td>
</tr>
<tr>
<td>interested in or don't know anything about</td>
<td>Control</td>
<td>3.86</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the subject</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking about yourself, your opinions &amp;</td>
<td>Schiz</td>
<td>3.35</td>
<td>1.43</td>
<td>-2.53</td>
<td>39.09</td>
<td>0.008</td>
</tr>
<tr>
<td>your feelings</td>
<td>Control</td>
<td>4.27</td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Putting your own point of view forward</td>
<td>Schiz</td>
<td>3.26</td>
<td>0.96</td>
<td>-4.84</td>
<td>39.36</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.45</td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to others</td>
<td>Schiz</td>
<td>4.04</td>
<td>0.88</td>
<td>-2.57</td>
<td>40.72</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.64</td>
<td>0.66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From this table, it can be seen that there are appreciable differences between the schizophrenic and control groups. On every item this difference was significant: \( p < .01 \) on all items except three, where \( p > .05 \). It can also be seen that on these items where the scores were low, (i.e. where the subject felt he coped less well) the differences between the scores of the two groups tend to be greater, suggesting that those aspects of social interaction which the control group regarded as more difficult, are even more problematic proportionally for the schizophrenics.

The Social Coping Questionnaire was further analyzed using the SPSS discriminant analysis procedure in order to determine how well the questionnaire as a whole would distinguish between schizophrenics and control subjects. There was only one discriminant function as there were only two groups, and this was significant at \( p < .001 \).

Classification results showed that 91.3% of schizophrenics and 95.5% of control subjects could be identified as such using the variable included in the analysis (see Table 5.25).

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SUBJECT</th>
<th>MEAN</th>
<th>SD</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>ONE-TAIL PROB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making new friends</td>
<td>Schiz</td>
<td>3.30</td>
<td>0.93</td>
<td>-3.53</td>
<td>41.57</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.18</td>
<td>0.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting to know people well</td>
<td>Schiz</td>
<td>3.22</td>
<td>1.35</td>
<td>-2.83</td>
<td>38.69</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.18</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintaining old friendships</td>
<td>Schiz</td>
<td>3.48</td>
<td>1.16</td>
<td>-1.84</td>
<td>41.22</td>
<td>0.037</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.05</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting on socially with men</td>
<td>Schiz</td>
<td>3.95</td>
<td>0.56</td>
<td>-4.67</td>
<td>42.40</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.68</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting on socially with women</td>
<td>Schiz</td>
<td>3.39</td>
<td>1.16</td>
<td>-4.23</td>
<td>33.21</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.55</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 5.25.
DISCRIMINANT ANALYSIS - CLASSIFICATION RESULTS

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>No. of cases</th>
<th>Predicted group membership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Schizophrenics (1)</td>
<td>23</td>
<td>21 (91.3%)</td>
</tr>
<tr>
<td>Controls (2)</td>
<td>22</td>
<td>1 (4.5%)</td>
</tr>
</tbody>
</table>

(It should be noted however, that this result was achieved because there were almost equal numbers in the two groups and that these proportions do not exist in the community).

The classification results can be seen quite clearly in Table 5.26.
TABLE 5.26.
DISCRIMINANT ANALYSIS ON SOCIAL COPING QUESTIONNAIRE

ALL-GROUPS STACKED HISTOGRAM

--- CANONICAL DISCRIMINANT FUNCTION 1 ---

<table>
<thead>
<tr>
<th>Frequency</th>
<th>4+</th>
<th>3+</th>
<th>2+</th>
<th>1+</th>
<th>OUT</th>
</tr>
</thead>
</table>
|           | 1  | 1  | 1  | 1  | 111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111
From this it can be seen that the two groups are clearly separated with two schizophrenics classified as being more like the control group, and one control subject classified with the schizophrenic group. These three misclassified cases were all close to the group boundary. These three cases were subsequently identified and it would seem that the two schizophrenics were misclassified for different reasons. One of the schizophrenics was extremely impaired and responded that he coped very well on most items (possibly because he was deluded or highly defensive), the other schizophrenic was coping extremely well in the community and was unmedicated. The former received a rating of 5 for social skill on the Conversation Test, the latter a rating of 10 ( for schizophrenics = 7.2, for controls = 10.9).

The following table shows the relative contribution of the variables and the discriminant function in terms of size.
### Table 3.2.1
**RELATIVE CONTRIBUTION OF VARIABLES**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>BETWEEN GROUP VARIANCE AS A PROPORTION OF TOTAL VARIANCE</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Joining in a conversation</td>
<td>.25</td>
<td>0.000</td>
</tr>
<tr>
<td>2. Putting your own point of view forward</td>
<td>.24</td>
<td>0.000</td>
</tr>
<tr>
<td>3. Getting on socially with men</td>
<td>.23</td>
<td>0.000</td>
</tr>
<tr>
<td>4. Talking to people when you are not interested etc.</td>
<td>.20</td>
<td>0.000</td>
</tr>
<tr>
<td>5. Keeping conversation going</td>
<td>.19</td>
<td>0.000</td>
</tr>
<tr>
<td>6. Getting on socially with women</td>
<td>.18</td>
<td>0.000</td>
</tr>
<tr>
<td>7. People looking at you during conversation</td>
<td>.16</td>
<td>0.000</td>
</tr>
<tr>
<td>8. Making new friends</td>
<td>.13</td>
<td>0.001</td>
</tr>
<tr>
<td>9. Looking at people during conversation</td>
<td>.11</td>
<td>0.001</td>
</tr>
<tr>
<td>10. Opening conversation</td>
<td>.09</td>
<td>0.003</td>
</tr>
<tr>
<td>11. Walking down the street</td>
<td>.08</td>
<td>0.004</td>
</tr>
<tr>
<td>12. Getting to know people well</td>
<td>.08</td>
<td>0.004</td>
</tr>
<tr>
<td>13. Listening to others</td>
<td>.07</td>
<td>0.017</td>
</tr>
<tr>
<td>14. Talking about yourself etc.</td>
<td>.06</td>
<td>0.008</td>
</tr>
<tr>
<td>15. Talking to people when you are interested</td>
<td>.05</td>
<td>0.017</td>
</tr>
<tr>
<td>16. Maintaining old friendships</td>
<td>.03</td>
<td>0.037</td>
</tr>
</tbody>
</table>

As can be seen from the table, no single variable has more than 25% between-group variance, but, combined in a discriminant function, the variables separate the two groups very well.

The variable which was most important in distinguishing between the two groups was therefore 'joining in a conversation' and the variable least important 'maintaining old friends' (which was the only non-significant variable in the questionnaire).
In order to see if there was a pattern in the items of the Social Coping Questionnaire the results were analyzed using the SPSS Factor Analysis procedure. This showed fairly clearly that there were two main factors on which thirteen of the items had high loadings, and the remaining three items did not seem to fit into the pattern. The factor analysis was re-run on the thirteen items giving the following results:

**TABLE 5.28. FACTOR ANALYSIS ON THIRTEEN VARIABLES**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>FACTOR 1</th>
<th>FACTOR 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking down the street</td>
<td>0.09</td>
<td>0.54</td>
</tr>
<tr>
<td>Looking at people when they are talking to you</td>
<td>0.13</td>
<td>0.77</td>
</tr>
<tr>
<td>People looking at you during conversation</td>
<td>0.13</td>
<td>0.81</td>
</tr>
<tr>
<td>Opening a conversation</td>
<td>0.50</td>
<td>0.37</td>
</tr>
<tr>
<td>Joining in a conversation</td>
<td>0.74</td>
<td>0.25</td>
</tr>
<tr>
<td>Keeping a conversation going</td>
<td>0.89</td>
<td>-0.03</td>
</tr>
<tr>
<td>Talking to people when you are interested in the conversation</td>
<td>0.46</td>
<td>0.29</td>
</tr>
<tr>
<td>Talking to people when you are not interested in the conversation</td>
<td>0.73</td>
<td>0.29</td>
</tr>
<tr>
<td>Talking about yourself, your opinions and feelings</td>
<td>0.34</td>
<td>0.57</td>
</tr>
<tr>
<td>Putting your own point of view forward</td>
<td>0.47</td>
<td>0.49</td>
</tr>
<tr>
<td>Making new friends</td>
<td>0.39</td>
<td>0.59</td>
</tr>
<tr>
<td>Getting on socially with men</td>
<td>0.65</td>
<td>0.17</td>
</tr>
<tr>
<td>Getting on socially with women</td>
<td>0.46</td>
<td>0.55</td>
</tr>
</tbody>
</table>

$\bar{r} = 0.49$  \hspace{1cm} McKennell's $\alpha = 0.85$
The high inter-item correlations (see Appendix 5.1 for correlation matrices) and the high values of McKennell's $\alpha$ would indicate that the seven items in scale 1 and the six items in scale 2 constitute reliable scales. (McKennell 1970).

All the items on scale 2 are related to the process of social exposure, where the individual might be considered 'on show'. They are also behaviours and situations which might be considered to be assertive (in the broader sense).

The items on scale 1, with the exception of 'getting on socially with men', are all directly related to conversation. At first sight it might seem strange that getting on socially with men and getting on socially with women are in different scales, but on reflection it becomes apparent that these are quite different activities and that getting on socially with men, for men might be confined to being able to converse with them.

Both the scales are therefore comprised of coherent sets of items.

The three items which did not fit in with the two factor pattern were:

1. **Maintaining old friendships.** This was possibly not a good question because of the relatively high proportion of the sample who had been to boarding school and who therefore tended not to be currently in geographical proximity to school friends. Although the samples were matched as far as possible on social class, they were not matched on educational background.

2. **Listening to others.** On reflection, it becomes apparent that listening could mean a number of different things to different people, e.g. it could mean a rather passive activity in terms of letting the other person talk and not saying anything or it could involve something much more active in terms of paying attention, showing the other person you are listening etc. Differences in interpretation of the question could account for an element of randomness about the answers.

3. **Getting to know people well.** Again, this question is open to different interpretations and as such, may have been a poor question.
The Social Coping Questionnaire therefore generated two distinct scales: a Social Exposure Scale and a Conversation Scale. The scores for these two scales were then calculated and, as might be expected on this type of test administered to subjects living in the community, it was found that the scores lay in the top half of the distribution. The raw scores were therefore regrouped to produce a scale from 1 - 6 (see Appendix 5.2).

In order to examine the differences between the schizophrenic and control groups on both scales, the schizophrenic's scores were compared with those of the normals. This produced the following results.

**TABLE 5.29.**
**COMPARISON OF SCHIZOPHRENICS AND CONTROLS ON SOCIAL EXPOSURE AND CONVERSATION SCALES**

<table>
<thead>
<tr>
<th>SOCIAL EXPOSURE SCALE</th>
<th>CONVERSATION SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scores</strong></td>
<td><strong>Schiz</strong></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

Kendall's Tau C = .78025  
Kendall's Tau C = .73481

This table shows quite clearly that schizophrenics see themselves coping less well than the control subjects both in situations where they are socially exposed and in conversation. Whilst there is some overlap on both scales, the modes of the two distributions are quite clearly distinct.
Relationship between self-report of coping with conversation and results of Semi-Standardized Conversation Test

In order to examine the relationship between the subjects' perception of their ability to cope with conversation and their actual coping the scores for the schizophrenics and controls (separately) were compared with the mean scores of the three external raters for overall social skill on the Conversation (role-play) Test. This gave the following results:

**TABLE 5.30.**
COMPARISON OF SCORES ON CONVERSATION TEST WITH SCORES ON CONVERSATION SCALE FOR SCHIZOPHRENICS AND CONTROLS

<table>
<thead>
<tr>
<th>SCHIZOPHRENICS</th>
<th>CONTROLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-Standardized Conversation Test</td>
<td>Semi-Standardized Conversation Test</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

* Denotes difference of 2 points or more between self-report of coping and external ratings of skill.

It can be seen that nine of the schizophrenics as compared with three of the control sample rated their ability to cope two or more points higher than the external raters' scores. (These three control subjects appeared to be highly anxious during the role-play conversation and this might account for the discrepancy). Examination of the mean scores on the recoded Social Coping Conversation Scale showed somewhat predictably that the mean score for the nine schizophrenics who rated themselves higher than the external raters (hereafter called the discrepant self raters) was higher (2.9) than the mean score for the remaining schizophrenics (the concordant self raters) (2.2).

Furthermore, analysis of the Relatives' Version of the Social Coping Questionnaire showed that on the Conversation Scale the relatives of eight out of these same nine schizophrenics rated their schizophrenic relative as less able to cope than the schizophrenics had themselves. (There was no data for the remaining one case - case number 10). The following table gives these results.

-183-
TABLE 5.3.1.
DISCREPANCY BETWEEN RELATIVES' RATINGS AND SUBJECTS' RATINGS FOR DISCREPANT AND CONCORDANT SELF Raters

<table>
<thead>
<tr>
<th>DISCREPANT RATERS</th>
<th>Case Number</th>
<th>1</th>
<th>2</th>
<th>5</th>
<th>9</th>
<th>10</th>
<th>13</th>
<th>15</th>
<th>17</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatives rating</td>
<td></td>
<td>19</td>
<td>17</td>
<td>10</td>
<td>14</td>
<td></td>
<td>18</td>
<td>11</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Subjects rating</td>
<td></td>
<td>21</td>
<td>23</td>
<td>21</td>
<td>25</td>
<td>20</td>
<td>25</td>
<td>23</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>Discrepancy</td>
<td></td>
<td>-2</td>
<td>-6</td>
<td>-11</td>
<td>-11</td>
<td></td>
<td>-7</td>
<td>-12</td>
<td>-2</td>
<td>-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONCORDANT RATERS</th>
<th>Case Number</th>
<th>3</th>
<th>4</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>11</th>
<th>12</th>
<th>14</th>
<th>16</th>
<th>18</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatives rating</td>
<td></td>
<td>29</td>
<td>18</td>
<td>21</td>
<td>26</td>
<td>27</td>
<td>25</td>
<td>20</td>
<td>19</td>
<td>22</td>
<td>-</td>
<td>-</td>
<td>26</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>Subjects rating</td>
<td></td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>19</td>
<td>16</td>
<td>21</td>
<td>14</td>
<td>25</td>
<td>23</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td>Discrepancy</td>
<td></td>
<td>+9</td>
<td>0</td>
<td>+2</td>
<td>+4</td>
<td>+4</td>
<td>+1</td>
<td>+1</td>
<td>+3</td>
<td>+1</td>
<td>-</td>
<td>-</td>
<td>+3</td>
<td>+2</td>
<td>-2</td>
</tr>
</tbody>
</table>

The above table would suggest that for six of the eight discrepant cases where data is available, the relatives were in some agreement with the external raters that these subjects coped with conversation less well than the subjects reported. Of those schizophrenic subjects whose scores were in some agreement with the external raters (the concordant raters) with the exception of one case, the relatives tended to see them coping rather better than the subjects reported themselves (when the results of the Conversation Scale of the Relatives Version of the Social Coping Questionnaire were correlated with the external raters score on the Conversation Test it was found that \( r = 0.43 \ p \leq 0.05 \)).

Further analysis showed that there were some differences relating to illness between the discrepant and the concordant groups.
<table>
<thead>
<tr>
<th></th>
<th>Discrepant Group</th>
<th>Concordant Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean no. of years since onset</td>
<td>5.5</td>
<td>8.6</td>
</tr>
<tr>
<td>Mean no. of months since last admission</td>
<td>32</td>
<td>41</td>
</tr>
<tr>
<td>Premorbid social functioning score</td>
<td>5.5</td>
<td>8.6</td>
</tr>
</tbody>
</table>

It would therefore seem that those who were less able to assess accurately their ability to cope with conversation were closer to the onset of the schizophrenia and also to their last episode and who had a lower level of premorbid social functioning. These differences were not statistically significant; however, since the pattern is consistent they should be taken seriously.

5.4.2. RELATIVES' VERSION OF THE SOCIAL COPING QUESTIONNAIRE

Analysis of the Relatives' Version of the Social Coping Questionnaire showed that although as previously shown (Table 5.31.), ten relatives rated their schizophrenic relative higher than the schizophrenics themselves, the mean scores of individual items on the relatives' questionnaire were in every case lower than the mean scores of the schizophrenics, i.e. the relatives tended to judge the schizophrenics as less able to cope than the schizophrenics judged themselves. No data was collected from three relatives, two of whom lived some distance away, the other was a semi-invalid and declined to participate. The mean scores for the schizophrenics and relatives are presented in Fig. 5.1.)
FIG. 5.1
MEAN SCORES OF SCHIZOPHRENICS & RELATIVES ON SOCIAL COPING QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Relative</th>
<th>Schizophrenic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking down the street</td>
<td>2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0</td>
</tr>
<tr>
<td>Looking at people during conversation</td>
<td></td>
</tr>
<tr>
<td>People looking at you during conversation</td>
<td></td>
</tr>
<tr>
<td>Opening a conversation</td>
<td></td>
</tr>
<tr>
<td>Joining a conversation</td>
<td></td>
</tr>
<tr>
<td>Keeping a conversation going</td>
<td></td>
</tr>
<tr>
<td>Talking to people when you are interested</td>
<td></td>
</tr>
<tr>
<td>Talking to people when you are not interested</td>
<td></td>
</tr>
<tr>
<td>Talking about yourself etc.</td>
<td></td>
</tr>
<tr>
<td>Putting your own point of view forward</td>
<td></td>
</tr>
<tr>
<td>Listening to others</td>
<td></td>
</tr>
<tr>
<td>Making new friends</td>
<td></td>
</tr>
<tr>
<td>Getting to know people well</td>
<td></td>
</tr>
<tr>
<td>Maintaining old friendships</td>
<td></td>
</tr>
<tr>
<td>Getting on socially with men</td>
<td></td>
</tr>
<tr>
<td>Getting on socially with women</td>
<td></td>
</tr>
</tbody>
</table>
It can be seen from this figure that the pattern of the scores is very similar. Where there are larger discrepancies (.7 or over) they are on those items for which the relative is likely to have less knowledge, i.e. making new friends, keeping up with old friends, getting on socially with women.

Summary of results on the Social Coping Questionnaire

There were significant differences between schizophrenics and controls on all the measures derived from the questionnaire. Discriminant analysis predicted group membership with 93% accuracy. The three most important variables contributing to the discriminant function were 'joining in a conversation', 'putting your own point of view forward' and 'getting on socially with men'. Using factor analysis, two scales were constructed: a Social Exposure Scale and a Conversation Scale. There were significant differences between schizophrenics and normals on both these scales. There were nine schizophrenics who rated their ability on the Conversation Scale higher than the external raters rated their actual social skill in the Conversation Test. The relatives of eight out of those nine also saw them as coping less well than they had reported. Those nine were closer to the initial onset of the illness, closer to their last episode and functioned less well premorbidly. Only one of the relatives of the remaining 13 schizophrenics thought that their relative coped less well. The pattern of responses derived from the means for the schizophrenics and relatives was very similar, with the relatives rating the schizophrenics slightly lower than they rated themselves. These results are discussed in section 6.2.2 and the test discussed in section 6.4.3.3.

5.5. SOCIAL PERCEPTION TEST

This test was designed to examine the differences between schizophrenics and non-schizophrenics in their perception (observation and interpretation) of three video-taped situations. Subjects were asked questions about the feelings, behaviour, the goal and achievement of the goal of the various people in the scenes (see Section 4.4.4.). Questions about feelings and goal were rated as 'appropriate' when they conformed to criteria determined by the pilot study, 'somewhat appropriate' when they partially conformed and 'inappropriate' when they did not. Where there was any doubt, an independent rater (male social scientist) was called in. Only those subjects whose responses were rated as 'appropriate' or 'partially appropriate' on the questions about feelings were scored on the
corresponding questions relating to behaviours. For each separate
behaviour mentioned, the subject scored one point. Those subjects who had
answered 'don't know' when asked what they thought the person was feeling
were not asked the question about behaviours. Questions about whether or
not the goal had been achieved were asked in such a way that all the
subjects, whether or not they had made an appropriate response to the
question about intent, could answer. (E.g. if a subject had responded to
the question about the man's intent in the pub scene with 'he was trying to
ask her for another game of squash' when the appropriate response was 'he
was trying to ask her to go to the cinema', he was asked, 'Did he succeed
in asking her to go to the cinema?' Questions relating to feelings, goals
and achievement of goals were then scored, inappropriate responses
receiving a score of 1 and appropriate a score of 4. A response of 'Don't
know' was thought to be better than an inappropriate response so scored 2,
with a partly appropriate response scored as 3.3
Comparisons of schizophrenics and controls produced the following results:

**TABLE 5.33.**
COMPARISONS OF SCHIZOPHRENICS AND CONTROLS ON
THE SOCIAL PERCEPTION TEST - PUB SCENE

<table>
<thead>
<tr>
<th>'What was the man feeling?'</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Appropriate</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.44049$
$p = 0.0005$

<table>
<thead>
<tr>
<th>Number of man's behaviours identified</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't know</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1 or 2 behaviours</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>3+ behaviours</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.058537$
$p = .0000$

<table>
<thead>
<tr>
<th>Mans Goal</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Appropriate</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.14815$
N.S.

<table>
<thead>
<tr>
<th>'What was the girl feeling?'</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.01383$
N.S.

<table>
<thead>
<tr>
<th>Number of girl's behaviours identified</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't know</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1 or 2 behaviours</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>3+ behaviours</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.55017$
$p = .0007$

<table>
<thead>
<tr>
<th>Was goal achieved?</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inapprop. (yes)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Approp (no)</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.30420$
$p = .0028$
There were significant differences between the schizophrenics and control subjects on the question relating to the man's feelings but not to the girl's. The seven schizophrenics and one control whose responses to the question of the man's feelings were rated 'somewhat appropriate' all perceived him as being 'slightly', 'a little' or 'maybe a bit' nervous or anxious whereas those rated as appropriate (12 schizophrenics and 21 controls) all saw him as being 'very', 'terribly' nervous or anxious or 'scared stiff'. On the question of the girl's feelings towards the man three of the four schizophrenics who made inappropriate responses to the question did so on the basis of their perceptions of the man's behaviour rather than of the girl's, e.g. 'she couldn't possibly like him because he was so nervous. One said, 'she must despise him'. The controls who made inappropriate responses all said that they thought she didn't particularly like him and went on to say it was because she didn't help him out of the situation; i.e. their judgement was based on what the girl did not do.

There were significant differences between the schizophrenics and the controls in the number of behaviours they were able to specify both in relation to the man and the girl. 21 out of 22 of the controls and only seven out of 19 schizophrenics being able to specify three or more behaviours on which their (appropriate or somewhat appropriate) judgement of the man's feelings had been made. Fewer of the sample, 11 out of 17 controls and two out of 17 schizophrenics, were able to identify three or more of the girl's behaviours. In view of this, and the fact that a higher proportion of both schizophrenics and controls were rated as 'inappropriate' or responded 'don't know' to the question of the girl's feelings towards the man, it would seem that the girl's behaviour was more ambiguous and open to misinterpretation than the man's.
### TABLE 5.34.
**COMPARISON OF SCHIZOPHRENICS & CONTROLS ON SOCIAL PERCEPTION TEST - OFFICE SCENE**

<table>
<thead>
<tr>
<th>'What was the man feeling?'</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.28247$
$p = 0.0209$

<table>
<thead>
<tr>
<th>Number of man's behaviours identified</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 or 2 behaviours</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>3+ behaviours</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>19</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.53551$
$p = 0.0008$

<table>
<thead>
<tr>
<th>Man's goal</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.08089$
N.S.

<table>
<thead>
<tr>
<th>'What was the girl feeling?'</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Appropriate</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.22123$
$p = 0.0218$

<table>
<thead>
<tr>
<th>Number of girl's behaviours identified</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't know</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>1 or 2 behaviours</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>3+ behaviours</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.60771$
$p = 0.0001$

<table>
<thead>
<tr>
<th>Was goal achieved?</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inapprop (yes)</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Approp (no)</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau $C = 0.26864$
$p = 0.0165$
There were significant differences between the schizophrenics and controls on the questions about feelings, the schizophrenics doing less well than the controls. Both groups seemed to have more difficulty with the interpretation of the man's feelings than those of the girl's (the opposite of the previous scene) with a total of ten subjects answering 'don't know' or giving inappropriate responses in relation to the man's feelings and only three to the question about the girl's feelings.

Once again, there were significant differences between the two groups on the questions about behaviours with the control group being able to specify more of both the man's and the girl's behaviours than the schizophrenic group.

The groups were almost equal in their ability to specify the man's goal in the scene but, as with the previous scene, the schizophrenics had (significantly) more difficulty in assessing whether or not he had achieved his goal.
TABLE 5.35.
COMPARISON OF SCHIZOPHRENICS & CONTROLS
ON SOCIAL PERCEPTION TEST - HOME SCENE

<table>
<thead>
<tr>
<th>'What was the boy feeling?'</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Appropriate</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau C = 0.21136
p = 0.0530

<table>
<thead>
<tr>
<th>'What was the man most interested in?'</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat approp</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Appropriate</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's tau C = -0.11852
N.S.

<table>
<thead>
<tr>
<th>Number of boy's behaviours identified</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't know</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1 or 2 behaviours</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>3+ behaviours</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>20</td>
</tr>
</tbody>
</table>

Kendall's Tau C = 0.556173
p = 0.0005

<table>
<thead>
<tr>
<th>'What was boy most interested in?'</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Appropriate</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau C = 0.04148
N.S.

<table>
<thead>
<tr>
<th>Boy's goal</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau C = -0.07369
N.S.

<table>
<thead>
<tr>
<th>Was goal achieved?</th>
<th>Schiz</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inapprop (yes)</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Approp (no)</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau C = 0.20346
p = 0.0536
As with the other two scenes, the questions about behaviour and achievement of goal produced significant differences between the schizophrenic and control groups. The questions on topics and on the boy's feelings produced little differences between the two groups and on the question about the boy's goal, the schizophrenic group did marginally better than the control group. Of those five in the control group who gave inappropriate responses to this question, four had sons about the same age as the boy in the scene and one had a younger son. (There were in total seven subjects in the control group who had sons between the ages of 13 and 16 years). All five failed to mention the boy's repeated requests for his father to go to the football match and saw the boy as either trying to eat his breakfast or impress his father with his schoolwork. Of these five, two made inappropriate assessments of the boy's feelings, one saying he was reasonably satisfied, the other that he felt guilty he could not help his father with the car engine (which the father stated he had to work on, rather than going to the son's football match). The two schizophrenics who gave inappropriate responses on the question of the boy's goal stated that he was trying to eat his breakfast and that he was trying to get his father's attention.

Discussion of responses to the scenes

1. Interpretation of feelings

Closer examination of the inappropriate responses to the questions about feelings and of the responses to the questions about behaviour showed that there were four distinct categories of inappropriate perception of feelings:

(a) Where the interpretation was based not on observation of the person in question but inferred from the other person's behaviour, e.g. (in the office) 'I thought he must be unhappy because she did not ask him any questions' and (at home) 'He must have been hopeful because his father said he might go to the match'. These assumptions were made in spite of evidence to the contrary. Six out of the 24 inappropriate responses fell into this category. They were all made by schizophrenics.
(b) Where the response, although inappropriate, was based on accurate perception of behaviour, e.g. (in the office) 'She was bored to tears....... She didn't ask any questions - she just stood there'. Five out of the 17 inappropriate responses given by the schizophrenics and three out of seven of the control group fell into this category.

(c) Where the interpretation was based on false observation of behaviour, e.g. (in the office) 'She was feeling interested and attentive..... she nodded her head and smiled, and agreed with him'. Two of the inappropriate responses given by the schizophrenics and three by the controls came into this category.

In the case of three of the inappropriate responses given by the schizophrenics and one by the controls, the response to the subsequent question about behaviour on which the judgement was based was 'don't know'. The responses cannot therefore be classified.

There were considerable differences between the number of inappropriate responses in relation to the different characters in the scenes. Those characters for whom the least number of inappropriate responses were given were the two people whose behaviour suggested extreme anxiety - the man in the pub scene and the girl in the office scene. Only two subjects (schizophrenics) gave inappropriate responses in relation to the feelings of the former and three (schizophrenics) for the latter. No inappropriate responses came from the control group.

Both schizophrenic and control subjects had the most difficulty with the girl in the pub with five controls and four schizophrenics making inappropriate interpretations. As previously discussed, this was possibly due to the fact that her behaviour was somewhat ambiguous; on the one hand she presented as someone who was reasonably open and friendly, on the other she made no attempt to help him out when he was saying how much he would like to see the film.

The other character whose behaviour was somewhat ambiguous, the man in the office scene also created some problems with five schizophrenics and two controls giving inappropriate responses. He went out of his way to say he
was showing her how to use the machine because he made a policy of being friendly with his new staff but thereafter he made no attempt to respond to the girl or to check out that she understood when it was reasonably clear that she did not.

The only character for whom the controls scored less well than the schizophrenics was the father in the Home Scene with five controls and two schizophrenics making inappropriate interpretations. Here as discussed above, it would seem that for three of those five controls, their perception of the situation was distorted as a result of being in a similar situation (with similar age sons) and by overly identifying with the father.

2. Identification of behaviours
The character who presented least difficulty in terms of interpretation of feeling (the man in the pub) was also the one for whom a high proportion of subjects (23) were able to specify three or more behaviours (with 13 subjects specifying one or two behaviours). The converse was also true. For the character who received the highest number of inappropriate responses on the question about feelings (the girl in the pub scene) 20 subjects were able to specify one or two behaviours (with only 13 giving three or more). It would therefore seem likely that those characters for whom it is possible to specify a higher number of behaviours are open to more accurate interpretations of feelings.

3. Identification of goal
The scene which created fewest problems in terms of identifying what the predominant character in the scene was trying to achieve (his goal) was the office scene. This scene was the most formal and structured of the three scenes. 20 of the schizophrenics and 21 of the controls accurately identified the goal.

The scene which created most problems for the schizophrenics in this respect was the most informal scene where the respective roles of the characters were least well defined - the pub scene. For this scene six of the schizophrenics (and two of the controls) failed to identify accurately the man's goal. However, their responses were not completely inappropriate, e.g. 'to prolong the evening so they could go to bed
together', 'to have a friendly chat with her'; rather, they just missed the main point. None of the schizophrenics in the sample was married or had experienced a long-term relationship with a woman, whereas 17 out of 22 of the control group were married or living with their female partners. The males in the control group had therefore presumably been successful in the initial stages of developing a relationship, which was in part what the young man in the scene was trying to do.

The scene which created most problems for the controls in terms of specifying goals, however, was the home scene with five of the controls (and two of the schizophrenics) giving inappropriate responses to the question about the boy's goal. Again, it might be important to consider the life experience of the subjects. 21 of the 23 schizophrenics lived at the parental home, 19 of which had the father present, whereas this was the case with only four of the controls. It would therefore seem likely that for this situation with which the schizophrenic is more familiar and in which he is more able to identify with a particular role (the son), his ability to assess what that person is trying to achieve is greater than the controls', particularly if they have similar aged children, in which case it seems likely that they will be identifying with the father, and, like him, fail to notice what the son is trying to do in the interaction.

4. Achievement of Goal (outcome)
For all three scenes there were significant differences between the schizophrenics and controls in their ability to determine whether or not the goal had been achieved. On those occasions where the controls had identified the goal correctly (54 times), in all but two they were able to assess accurately whether or not the goal had been achieved. This was in marked contrast to the schizophrenics. On half of the occasions (17) on which they had specified the goal accurately (35 in all), they were unable to specify whether or not that goal had been achieved. For all those who had specified the goal accurately, the scene which caused most problems in determining whether or not the goal had been achieved was the office scene. However, if those who failed to specify the goal are taken into account, there was little difference between the scenes with respect to judgements about outcome.
In order to examine the relationship between the items of the Social Perception Test the results were analyzed using the SPSS factor analysis procedure. The data was therefore recoded to form an ordinal scale with 'don't know' coded between inappropriate and partly appropriate.

It was expected either that there would be a strong association among those questions relating to feelings (regardless of the situation), and those relating to behaviour, goals and outcome; or that items relating to specific situations would be associated. The former would suggest a trait view of social perception, i.e. that types of judgement would be made by the subjects irrespective of the situation, the latter that social perception is situation specific and that individuals' ability to make accurate perceptions may vary according to the situation.

The factor analysis gave three main factors on which a total of 12 items had high loadings with the remaining items not seeming to fit into this pattern. High inter-items correlation (see Appendix 5.3.) and the high value of McKenell's $\alpha$ would indicate that these items form reliable scales (see Table 5.36.).
### TABLE 5.36.
FACTOR ANALYSIS ON THIRTEEN VARIABLES OF THE SOCIAL PERCEPTION TEST

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- man's feelings</td>
<td>0.15</td>
<td>0.93</td>
<td>-0.08</td>
</tr>
<tr>
<td>- man's behaviour</td>
<td>0.22</td>
<td>0.78</td>
<td>-0.03</td>
</tr>
<tr>
<td>- man's goal</td>
<td>0.38</td>
<td>-0.02</td>
<td>0.30</td>
</tr>
<tr>
<td>- man's goal achieved</td>
<td>0.21</td>
<td>0.71</td>
<td>-0.12</td>
</tr>
<tr>
<td>- girl's feelings</td>
<td>0.07</td>
<td>-0.03</td>
<td>0.94</td>
</tr>
<tr>
<td>- girl's behaviour</td>
<td>0.16</td>
<td>0.16</td>
<td>0.86</td>
</tr>
<tr>
<td>OFFICE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- girl's feelings</td>
<td>0.75</td>
<td>0.13</td>
<td>0.09</td>
</tr>
<tr>
<td>- girl's behaviour</td>
<td>0.69</td>
<td>0.18</td>
<td>-0.17</td>
</tr>
<tr>
<td>- man's goal achieved</td>
<td>0.11</td>
<td>0.57</td>
<td>-0.08</td>
</tr>
<tr>
<td>- man's feelings</td>
<td>0.56</td>
<td>0.30</td>
<td>0.30</td>
</tr>
<tr>
<td>- man's behaviour</td>
<td>0.53</td>
<td>0.29</td>
<td>-0.33</td>
</tr>
<tr>
<td>HOME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- boy's feelings</td>
<td>0.80</td>
<td>0.01</td>
<td>0.17</td>
</tr>
<tr>
<td>- boy's behaviour</td>
<td>0.77</td>
<td>0.19</td>
<td>0.23</td>
</tr>
<tr>
<td>- boy's goal achieved</td>
<td>0.72</td>
<td>0.23</td>
<td>0.04</td>
</tr>
</tbody>
</table>

\[ r = 0.49 \]
\[ \text{McKennell's } \chi^2 = 0.87 \]
\[ 0.79 \]
\[ 0.89 \]

**Factor 1**

This apparently disparate set of items can, on closer examination, be seen to relate to a particular type of situation, in which there is a considerable degree of male dominance, i.e. in the office and home scenes.

**Factor 2**

The three items in this factor relate to the man in an ambiguous hetero-social scene, i.e. in the pub.

**Factor 3**

Both items in this factor relate to the woman in the ambiguous hetero-social scene.

It can therefore be seen that social perception of these scenes was situationally specific; that is, the individual has a typology of situations on which his perceptions are based.

In order to compare the schizophrenics and controls on these three types of situation, three new variables were derived from the variables identified in the factor analysis and crosstabulated with the two groups. The new variables were then recoded taking into account the distributions (see Appendix 5.4.) and again crosstabulated with the schizophrenics and controls. This produced the following results.
TABLE 5.37.
COMPARISON OF SCHIZOPHRENICS AND CONTROLS ON
PERCEPTION OF THREE TYPES OF SITUATION

<table>
<thead>
<tr>
<th>Male Dominant Situations</th>
<th>Ambivalent Heterosocial Situations (male)</th>
<th>Ambivalent Heterosocial Situations (female)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Schiz</td>
<td>Control</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>22</td>
</tr>
</tbody>
</table>

Kendall's Tau C = 0.52741
p = 0.0009
Kendall's Tau C = 0.77827
p = 0.0000
Kendall's Tau C = 0.39753
p = 0.0138

It can therefore be seen that there were significant differences between schizophrenics and controls on all three scales of the Social Perception Test.

Relationship between scores on the Social Perception Test and the personal characteristics of the sample

In order to examine the relationship between the scales of the Social Perception Test and some of the personal characteristics of the sample, the SPSS multiple regression procedure was run on the three dependent variables. The results of this are shown in the following table.

TABLE 5.38.
STANDARDIZED REGRESSION COEFFICIENTS FOR PERSONAL CHARACTERISTICS OF SCHIZOPHRENICS ON THREE SCALES OF THE SOCIAL PERCEPTION TEST

<table>
<thead>
<tr>
<th></th>
<th>Male Dominant Situations</th>
<th>Ambiguous Hetero. Sit. (male)</th>
<th>Ambiguous Hetero. Sit. (female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRONICITY</td>
<td>0.0371</td>
<td>-0.2391</td>
<td>-0.0194</td>
</tr>
<tr>
<td>LAST ADMISSION</td>
<td>-0.3214</td>
<td>0.2792</td>
<td>0.1171</td>
</tr>
<tr>
<td>SOCIAL CLASS</td>
<td>0.2859</td>
<td>0.0405</td>
<td>0.3945</td>
</tr>
<tr>
<td>PREMORBID S.F.</td>
<td>0.1729</td>
<td>0.1517</td>
<td>0.4391</td>
</tr>
<tr>
<td>VERBAL ABILITY</td>
<td>0.4907 *</td>
<td>0.1897</td>
<td>0.0169</td>
</tr>
</tbody>
</table>

* p < .05
The scores on the social perception scales did not seem to be influenced by the personal characteristics of the sample. This was, however, quite a strong association between verbal ability and the scores on the male dominant situations. This was also found to be the case with the control group (r = .50, p < 0.01). The differences between the two groups might therefore have been a function of differences in verbal ability between the two groups. (On the 6-point Mill Hill Vocabulary Scale on which 1 represents verbally superior and 6 definitely below average the mean score of the schizophrenics was 3.9 whereas that of the controls was 3.0).

However it was found that when the sample was divided into two groups on the basis of intelligence, within each group the association was almost unchanged. The association between the scores on this scale and group membership would therefore not seem to be due to differences in intelligence.

Summary of results on the Social Perception Test
On all three tests there were significant differences between schizophrenics and controls on the number of behaviours they were able to specify, but with the exception of interpreting the man's feelings in the first scene there were no significant differences between the two groups on their interpretation of the feelings of the characters in the scenes. Although there were no differences between the groups on the ability to specify the various characters' goals, the schizophrenics had difficulty in assessing whether or not the goal had been achieved for all three scenes.

Three distinct categories of misperception of feelings emerged; (1) where the interpretation was based on the perception of the other person's behaviour, (2) where the interpretation, although inaccurate, was based on accurate observation of the person's behaviour, and (3) where the misinterpretation was based on faulty observation of behaviour.

The two characters who received fewer inappropriate responses were those who, not surprisingly, displayed fairly gross behaviours generally associated with anxiety. The characters who received the greater number of inappropriate responses were those who gave off conflicting messages (the boss and the father). It was also found that the character who presented least difficulty to the subjects was the one for whom a high proportion of subjects could specify more behaviours. The converse was also true.
The scene which presented fewest problems of goal interpretation to the schizophrenics was the most formal scene and the one that presented most problems the least structured. The scene which the controls had most difficulty with was the home scene. It has been argued that this might have been accounted for by the life-experience of the sample.

There were significant differences between the schizophrenics and the controls in their assessment of whether the goal had been achieved. Over 50% of those schizophrenics who were able to identify the goal were unable to say whether the goal had been achieved. The figure was less than 5% for the controls.

Factor analysis showed that the items of the test grouped together in types of situation rather than the specific aspects of perception and differences between the schizophrenics and controls on all three of the derived scales were significant.

Scores on these scales were not found to be particularly influenced by the personal characteristics of the sample. There was, however, a significant association between intelligence and the perception of male dominant situations, although this did not seem to account for the difference between the schizophrenics and controls on this scale.

The results of the Social Perception Test are discussed further in section 6.2.4 and the test itself in section 6.4.2.4.

5.6. SOCIAL SITUATIONS QUESTIONNAIRE (See section 4.4.5.)

This questionnaire was designed to look at the differences between schizophrenics and controls in an amount of social contacts and interaction engaged in. The activities in question have a variety of occurrence and were therefore reclassified into often (3) sometimes (2) and rarely (1) rather than using the raw scores. This was done with reference to the distribution of the control group and on a common sense basis (e.g. answering the phone once a fortnight has been classified as rarely whereas visiting friends once a fortnight has been classified as sometimes). See Appendix 5.5.

Table 5.39 and Fig. 5.2 show the differences between the mean (recoded) scores for schizophrenics and normals on twenty different activities and also the separate variance estimates. Because such a small proportion of schizophrenics were not in employment, the items relating to work have been dropped.
<table>
<thead>
<tr>
<th>ITEMS</th>
<th>GROUP</th>
<th>MEAN</th>
<th>SD</th>
<th>SEPARATE VARIANCE ESTIMATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>T-VALUE</td>
<td>DEGREES OF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FREEDOM</td>
<td>1-TAIL PROB</td>
</tr>
<tr>
<td>Answering the phone</td>
<td>Schiz</td>
<td>2.52</td>
<td>0.60</td>
<td>-2.65</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.91</td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td>Making phone calls</td>
<td>Schiz</td>
<td>1.78</td>
<td>0.60</td>
<td>-5.88</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.77</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>Answering the door</td>
<td>Schiz</td>
<td>2.19</td>
<td>0.68</td>
<td>-1.93</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.55</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>Buying things in shops alone</td>
<td>Schiz</td>
<td>2.23</td>
<td>0.80</td>
<td>-1.65</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.55</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>Going to the bank or Post Office alone</td>
<td>Schiz</td>
<td>2.61</td>
<td>0.50</td>
<td>-1.07</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.77</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>Going into pubs, cafes or restaurants</td>
<td>Schiz</td>
<td>2.17</td>
<td>0.65</td>
<td>0.47</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.09</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td>Going to places other than pubs etc.</td>
<td>Schiz</td>
<td>1.70</td>
<td>0.93</td>
<td>-3.34</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.50</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>Visiting friends</td>
<td>Schiz</td>
<td>1.78</td>
<td>0.90</td>
<td>-3.16</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.50</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>Friends visiting</td>
<td>Schiz</td>
<td>1.65</td>
<td>0.83</td>
<td>-4.16</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.55</td>
<td>0.60</td>
<td></td>
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<tr>
<td>Talking to visitors to house</td>
<td>Schiz</td>
<td>2.05</td>
<td>0.87</td>
<td>-2.40</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.62</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Greeting neighbours</td>
<td>Schiz</td>
<td>2.09</td>
<td>0.85</td>
<td>-2.54</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.67</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>Talking to neighbours</td>
<td>Schiz</td>
<td>1.57</td>
<td>0.79</td>
<td>-2.09</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.05</td>
<td>0.74</td>
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</tr>
<tr>
<td>Going out of the house alone</td>
<td>Schiz</td>
<td>2.91</td>
<td>0.29</td>
<td>-1.45</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>3.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Going out with family</td>
<td>Schiz</td>
<td>2.05</td>
<td>0.72</td>
<td>-4.21</td>
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<tr>
<td></td>
<td>Control</td>
<td>2.80</td>
<td>0.41</td>
<td></td>
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<tr>
<td>Going out with others</td>
<td>Schiz</td>
<td>2.09</td>
<td>0.90</td>
<td>-2.44</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.64</td>
<td>0.58</td>
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</table>
TABLE 5.39. (Continued)

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>GROUP</th>
<th>MEAN</th>
<th>SD</th>
<th>SEPARATE VARIANCE ESTIMATE</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>1-TAIL PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T-VALUE</td>
<td></td>
<td>DEGREES OF FREEDOM</td>
<td>1-TAIL PROB</td>
</tr>
<tr>
<td>Suggesting going out</td>
<td>Schiz</td>
<td>2.25</td>
<td>0.78</td>
<td>-0.93</td>
<td>30.01</td>
<td>0.181</td>
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</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.48</td>
<td>0.68</td>
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<td></td>
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</tr>
<tr>
<td>Spending evenings with family</td>
<td>Schiz</td>
<td>2.59</td>
<td>0.67</td>
<td>-2.38</td>
<td>26.09</td>
<td>0.013</td>
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<tr>
<td></td>
<td>Control</td>
<td>2.95</td>
<td>0.22</td>
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</tr>
<tr>
<td>Spending evenings with others</td>
<td>Schiz</td>
<td>2.52</td>
<td>0.79</td>
<td>-0.56</td>
<td>40.38</td>
<td>0.291</td>
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<td></td>
<td>Control</td>
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<td>0.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spending evening with others &amp; talking</td>
<td>Schiz</td>
<td>2.35</td>
<td>0.86</td>
<td>-1.30</td>
<td>38.18</td>
<td>0.101</td>
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<td>Control</td>
<td>2.64</td>
<td>0.58</td>
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<td></td>
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</tr>
<tr>
<td>Spending evenings alone</td>
<td>Schiz</td>
<td>1.87</td>
<td>0.92</td>
<td>0.19</td>
<td>42.96</td>
<td>-</td>
<td></td>
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<tr>
<td></td>
<td>Control</td>
<td>1.81</td>
<td>0.85</td>
<td></td>
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</tr>
<tr>
<td>Activity</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Answering phone</td>
<td>1.0</td>
<td>1.1</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making calls</td>
<td>1.3</td>
<td>1.4</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Answering door</td>
<td>1.6</td>
<td>1.7</td>
<td>1.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping alone</td>
<td>1.9</td>
<td>2.0</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank or PO alone</td>
<td>2.2</td>
<td>2.3</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pubs, cafes etc.</td>
<td>2.5</td>
<td>2.6</td>
<td>2.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other places</td>
<td>2.8</td>
<td>2.9</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends visiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking to visitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greeting neighbours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking to neighbours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Going out alone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Going out with family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Going out with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggesting going out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evenings with family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evenings with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evening talking with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evenings alone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
from Table 5.39 and Fig. 5.2 it can be seen that there are appreciable differences between the two groups. This is significant at \( p \leq 0.1 \) for nine of the items and \( p \leq 0.05 \) for five items. In most cases, the range of the scores for the schizophrenics is wider for than that for the normals as can be seen from the standard deviations. On every item except going to pubs, cafes or restaurants and spending the evening alone, the schizophrenics obtained a lower score on frequency of occurrence.

The items where the mean difference is greater than .5 are:

1. Visiting places other than pubs, cafes or restaurants where they meet and talk to people
2. Visiting friends' houses
3. Friends visiting
4. Talking to people who visit others in the house
5. Going out with the immediate family
6. Going out with people other than family
7. Greeting neighbours

The items for which the mean difference is low (less than .2) are:

1. Going to the bank or Post Office
2. Going to pubs, cafes or restaurants
3. Going out alone
4. Spending the evening with others (although not necessarily talking to them)
5. Spending the evening alone

It can therefore be seen that the greatest differences between the schizophrenic and the control group are to be found on those items which demand a greater interactional involvement, whereas the smallest differences were on those items which require little interpersonal contact.

In order to look further at the relationship between items on the Social Situations Questionnaire, the results were analysed using the SPSS factor analysis sub-programme. This showed fairly clearly that there were three main factors on which a total of 14 items had high loadings with the remaining five items not seeming to fit into this pattern. The factor analysis was re-run on the 14 items (see Appendix 5.6) giving the following results: (The results however should be treated cautiously owing to the small sample size).
### TABLE 5.40.
**FACTOR ANALYSIS ON FOURTEEN VARIABLES OF SOCIAL SITUATIONS QUESTIONNAIRE**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>FACTOR 1</th>
<th>FACTOR 2</th>
<th>FACTOR 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering the phone</td>
<td>-0.07</td>
<td>0.83</td>
<td>-0.03</td>
</tr>
<tr>
<td>Making phone calls</td>
<td>0.28</td>
<td>0.65</td>
<td>-0.06</td>
</tr>
<tr>
<td>Answering the door</td>
<td>-0.30</td>
<td>0.56</td>
<td>0.29</td>
</tr>
<tr>
<td>Going out to pubs etc.</td>
<td>-0.01</td>
<td>0.03</td>
<td>-0.51</td>
</tr>
<tr>
<td>Going to places other than pubs etc.</td>
<td>0.48</td>
<td>-0.01</td>
<td>0.20</td>
</tr>
<tr>
<td>Visiting friends</td>
<td>0.53</td>
<td>0.39</td>
<td>0.34</td>
</tr>
<tr>
<td>Inviting friends to visit</td>
<td>0.33</td>
<td>0.58</td>
<td>0.24</td>
</tr>
<tr>
<td>Greeting neighbours</td>
<td>0.07</td>
<td>0.34</td>
<td>0.84</td>
</tr>
<tr>
<td>Talking to neighbours</td>
<td>0.11</td>
<td>0.02</td>
<td>0.77</td>
</tr>
<tr>
<td>Going out with family</td>
<td>0.50</td>
<td>0.37</td>
<td>0.16</td>
</tr>
<tr>
<td>Going out with others</td>
<td>0.58</td>
<td>0.28</td>
<td>-0.05</td>
</tr>
<tr>
<td>Spending evening with family</td>
<td>0.30</td>
<td>0.40</td>
<td>0.22</td>
</tr>
<tr>
<td>Spending evening with others</td>
<td>0.72</td>
<td>0.06</td>
<td>0.10</td>
</tr>
<tr>
<td>Spending evening talking to others</td>
<td>0.87</td>
<td>0.00</td>
<td>0.02</td>
</tr>
</tbody>
</table>

$r =$  

McKennell's $\alpha =$  

<table>
<thead>
<tr>
<th></th>
<th>FACTOR 1</th>
<th>FACTOR 2</th>
<th>FACTOR 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.40</td>
<td>0.39</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>0.79</td>
<td>0.76</td>
<td>0.75</td>
</tr>
</tbody>
</table>

The high values of McKennell's $\alpha$ would indicate that the six items of scale 1, the five items of scale 2 and the three items of scale 3 form reliable scales.

Scale 1 consists of social activities taking place outside the home (subsequently referred to as the Social Scale) such as going to places other than pubs, cafes or restaurants where they meet and talk to people.

Scale 2 is concerned with activities within the home (subsequently referred to as the Home Scale) such as answering the telephone. Scale 3 includes neighbourhood activity (Neighbourhood Scale) such as talking to neighbours and not going to the pub (going to the pub was negatively correlated with greeting and talking to neighbours).

The five items which did not seem to fit into any scale were; 1. 'Buying things in shops', 2. 'Going to the bank or Post Office' - it was felt that possibly these items had different implications for the two groups, e.g. because of the high unemployment rate the schizophrenics tended to go to
the Post Office at regular intervals. 3. 'Going out alone' - almost all schizophrenics and controls did this every day. 4. 'Talking to those who visit others in the house' - many of the control group (who were mostly married) said that visitors to the house were common to the couple so the question did not really apply to them. (This question was designed to be of relevance to the schizophrenic subjects living at home with their parents, siblings etc.) 5. 'Spending the evening alone' - this question may not have been sufficiently specific.

Using the factor score facility of the SPSS factor analysis procedure, scores on the three scales were computed (after reversing the scores for 'Going to pubs' as this was negatively correlated with the other items in the scale). The following table shows the means, standard deviations and results of a one-tailed t-test on the difference between the means for schizophrenics and controls on the three scales.

**TABLE 5.41.**
MEANS, STANDARD DEVIATIONS AND SEPARATE VARIANCE ESTIMATES AND CONTROLS ON THREE SCALES OF THE SOCIAL SITUATIONS QUESTIONNAIRE

<table>
<thead>
<tr>
<th>SOCIAL SCALE</th>
<th>MEAN</th>
<th>SD</th>
<th>T-VALUE</th>
<th>DEGREES OF FREEDOM</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHIZOPHRENICS</td>
<td>-0.28</td>
<td>1.07</td>
<td>-2.21</td>
<td>36.51</td>
<td>0.034*</td>
</tr>
<tr>
<td>CONTROLS</td>
<td>0.30</td>
<td>0.65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOME SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHIZOPHRENICS</td>
</tr>
<tr>
<td>CONTROLS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEIGHBOURHOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHIZOPHRENICS</td>
</tr>
<tr>
<td>CONTROLS</td>
</tr>
</tbody>
</table>

* p \( \leq .05 \)  
** p \( \leq .001 \)
The above table shows significant differences between schizophrenics and controls on the Social and Home Scales, i.e. schizophrenics engage in those activities which constitute those scales a great deal less often than non-schizophrenics. Although there was a clear difference on the Neighbourhood Scale, this was non-significant.

Relationship between scores on the three scales of The Social Situations Questionnaire and the personal characteristics of the Sample

In order to examine the relationship between the three scales and the personal characteristics of the sample, the SPSS multiple regression procedure was run on the three dependent variables. The independent variables selected for this procedure were social class, intelligence, chronicity of illness, time since last admission and premorbid social functioning. Age was not included because of its high correlation with chronicity. The results of the multiple regression are shown in the following table.

<table>
<thead>
<tr>
<th></th>
<th>SOCIAL SCALE</th>
<th>HOME SCALE</th>
<th>N'HOOD SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRONICITY</td>
<td>0.1686</td>
<td>-0.0001</td>
<td>-0.7010*</td>
</tr>
<tr>
<td>LAST ADMISSION</td>
<td>-0.3406</td>
<td>0.2611</td>
<td>-0.6233</td>
</tr>
<tr>
<td>SOCIAL CLASS</td>
<td>-0.1308</td>
<td>0.2006</td>
<td>-0.3850</td>
</tr>
<tr>
<td>PREMORBID S.F.</td>
<td>0.3263</td>
<td>0.2276</td>
<td>0.2184</td>
</tr>
<tr>
<td>VERBAL ABILITY</td>
<td>0.1390</td>
<td>-0.0891</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05
The scores on the Neighbourhood Scale tended to be more influenced by the personal characteristics of the sample than those of the other two scales but the regression as a whole was not significant (with those furthest in time from the onset of their illness, going to the pub less and talking to neighbours more). However, because of the small size of the sample and the number of independent variables in the regression it would have been unlikely to have found any strong association between any specific sample characteristic and the constructed scales.

Summary of results on the Social Situations Questionnaire

There was little difference between the schizophrenics and controls in the frequency of visiting pubs, cafes, etc, going out alone or spending the evening alone. The greatest differences between the two groups were found on those activities which required actual social interaction, the least for those which made fewer interpersonal demands. Using the factor analysis procedure three scales were constructed; a Social Scale, a Home Scale and a Neighbourhood Scale. There were significant differences between schizophrenics and controls on the Social and Home Scales, but not on the Neighbourhood Scale. Multiple regression was used in order to examine the possible effects of some of the personal characteristics of the schizophrenic sample on the scales. Only the Neighbourhood Scale seemed to be influenced, with chronicity making a significant contribution and the regression. (Those who had been ill for longer tended to interact more with their neighbours and go to the pub less often). The results of the Social Situations Questionnaire are discussed further in section 6.2.5. and the Questionnaire critically examined in section 6.4.3.5.

5.7. THE SEMI-STRUCTURED INTERVIEW

The Semi-Structured Interview with the schizophrenic subjects was designed to obtain information on;

(1) the subjects' social contacts, how they spent their day and who they interacted with (to supplement the Social Situations Questionnaire);

(2) which situation the subjects reported as difficult and how they cognitively construed such situations (to supplement the Social Coping Questionnaire);

(3) what sort of social activities the subjects would like to engage in (their long-term goals).
In the relative's version of the interview, the relatives were asked about situations which they perceived the schizophrenic finding difficult, and about what activities they would like to see the schizophrenic engaging in.

1. **Social contacts**

When considering social skills training, it is important to take into account the individual's existing social environment. As training will involve the client putting into practice behaviours learned in training sessions, it is necessary to have some knowledge of the types of situation in which the subject normally engages, before asking him to try out new behaviours in those situations. The schizophrenia literature suggests the schizophrenic may be isolated, tending to avoid social interaction, spending long periods of time alone in his room or possibly pacing the streets. In order, therefore, to get some idea of the schizophrenic's day and the extent of his social contacts, the subject was asked how he spent a typical day, and if it was any different from any other day. He was also asked who he met during the course of his day. This information supplemented the information gained from the Social Situations Questionnaire.

Five of the sample were in full-time employment: all five met and interacted with a variety of people during the course of their day, although three said that they tended to spend coffee and lunch breaks alone rather than interacting with colleagues, as was the norm. One subject was in part-time sheltered employment, working for his brother. Again, he met a range of people in the job. Of the 17 unemployed, 14 attended a day centre or day hospital at least once a week and generally twice. On the days when they were not attending such places, there appeared to be a remarkable similarity in how the subjects spent their time. Below is a typical account.

The subject typically gets up between 10 and 11 o'clock, has breakfast and perhaps helps his mother or father around the house or garden for a short while. He then may go out to the nearest town or village and buy cigarettes or a newspaper and go to a cafe or pub for a drink if they are open. He may have some lunch either at the pub or cafe or return home. In the afternoon he might lie down for an hour or so before going to the job centre and perhaps visiting a friend (generally also schizophrenic) or meeting a friend in a local cafe. In the evening he will watch television, listen to records in his room, visit a friend, or more likely, go to the pub. At the
pub he might say the odd word to one or two locals but otherwise, unless he has arranged to meet a friend there, he is unlikely to interact to any extent with anyone there. He then returns home and goes to bed. Once or twice a week he may attend the Schizophrenic Fellowship or some other day centre.

The schizophrenic therefore, has many opportunities to interact during the course of a 'normal' day. He meets shopkeepers, friends, people in pubs - bartenders and other locals, and people in cafes. In addition, seven subjects also belonged to some sort of sports or interest group, again with ample opportunity for social interaction. Although, on first glance, the schizophrenic's day might seem somewhat impoverished, it probably is not all that different from any long-term unemployed person.

2. Coping with difficult situations
The Social Coping Questionnaire was designed to examine the subject's cognitions of his ability to cope with various aspects of conversation, with various types of situation, and with different types of people. In order to examine specific situations in more detail, the subject was presented with a list of 'assertive' situations and asked a number of questions relating to the situation. Originally, it had been hoped that subjects would be able to generate their own lists of situations but after the pilot study it was found that subjects had a great deal of difficulty in thinking in terms of situations. A list of assertive situations which commonly cause difficulty was therefore constructed. Subjects were asked to pick out the situations they found difficult, to describe what usually happened, what they would like to be able to do in the situation (their short-term goals) and what it was they thought prevented them from doing this.

17 of the 23 schizophrenics identified at least one of the situations as causing difficulty (see Table 5.43.) Three claimed they had no difficulty (the same three who were satisfied with their current social life), two did not know and one made no response. The relatives, with one exception (dealing with criticism/apologising), mentioned fewer situations than did the subjects.

The results were analyzed in terms of:

(a) the sort of change which those subjects (who had identified the situation as difficult) would like to make: whether they would want to; (i) make a different behavioural response, (ii) feel
differently, or (iii) make no change.

(b) the explanation those subjects gave for not being able to implement this change (i.e. achieve their preferred goal in the situation): Did they see it as a result of (i) a limited behavioural repertoire and/or lack of social knowledge (e.g. 'I don't know how to,' 'I wouldn't know what to do')? (ii) negative self-cognitions, (e.g. 'I'm too shy', 'I'm not that sort of person'), or (iii) fear of negative consequences (e.g. 'they wouldn't like me', 'I might make a fool of myself'). The results of this analysis are presented in Table 5.43).
<table>
<thead>
<tr>
<th>SITUATION</th>
<th>NO. OF SUBJECTS EXPERIENCING DIFFICULTY</th>
<th>NO. WANTING TO CHANGE BEH. IN SITUATION</th>
<th>NO. WANTING CHANGE IN AFFECT</th>
<th>NO. WANTING NO CHANGE</th>
<th>EXPLANATION FOR INABILITY TO MAKE DESIRED RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( ) relative's responses</td>
<td></td>
<td></td>
<td></td>
<td>Limited beh. repertoire and/or social knowledge</td>
</tr>
<tr>
<td>Conversation with persons little known</td>
<td>13(8)</td>
<td>10(77%)</td>
<td>2(15%)</td>
<td>1(8%)</td>
<td>Neg. self cognitions</td>
</tr>
<tr>
<td>Dealing with criticism/ apologising</td>
<td>10(13)</td>
<td>8(80%)</td>
<td>1(10%)</td>
<td>1(10%)</td>
<td>Fear of negative conseqs.</td>
</tr>
<tr>
<td>Asking women out</td>
<td>9(3)</td>
<td>8(89%)</td>
<td>-</td>
<td>1(11%)</td>
<td>-</td>
</tr>
<tr>
<td>Making complaints</td>
<td>9(5)</td>
<td>9(100%)</td>
<td>-</td>
<td>-</td>
<td>2(22%)</td>
</tr>
<tr>
<td>Refusing a request</td>
<td>8(2)</td>
<td>5(63%)</td>
<td>1(13%)</td>
<td>2(25%)</td>
<td>5(56%)</td>
</tr>
<tr>
<td>Making a request of another person</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>5(100%)</td>
<td>-</td>
</tr>
</tbody>
</table>
It can be seen that the situation which caused the most subjects difficulty was conversation with persons little known to them, followed by dealing with criticism and apologizing and asking women to go out on a date. For all situations, other than making a request of another person, a high proportion of respondents wanted to make some response in the situation other than the one they generally made, with only a small proportion wanting to feel differently in the situation (e.g. 'more confident', 'less up-tight') or not wanting to make any changes. A little surprisingly, all five of the subjects who experienced difficulty in making requests of others did not want to make any changes, saying things such as, 'You should be self-reliant', 'You shouldn't ask anybody to do anything', 'If you can't do it yourself you shouldn't ask others to do it'. In most cases where the subject did not wish to make changes there were strong cognitive schemas relating to those situations consisting of beliefs about what 'ought' or 'ought not' to be done in the situation, e.g. 25% of subjects who had difficulty refusing requests felt that they should not be refusing.

Looking at the explanation subjects gave for not being able to achieve their desired goal in the situation, it can be seen that overall, fear of negative consequences was the main reason given by twice as many subjects as a limited behavioural repertoire or negative self cognitions. It would seem therefore that the schizophrenic is not responding in these sort of situations without going through the 'translation' stage of the social skill process, as has been suggested by Salzinger's (1973) immediacy hypothesis (see Section 2.3.2.5.) but is thinking about situations and making choices based on a consideration of the consequences of alternative strategies. The prediction of consequences, which the schizophrenic makes, may possibly be erroneous, but the translation stage does seem to be present, to some extent.

This situation analysis was limited by the fact that it only dealt with situations which the schizophrenic subject identified as difficult. However, it does point to the importance of assessment of cognitive schema and the translation process in relation to social skill and raises issues about the usefulness of simple behavioural skills training with schizophrenics.
3. **Long-term goals**

The schizophrenics were asked, (1) if they were satisfied with their present social life and ability to get on with people, and (2) if not, what would they like to be doing. The results are presented in table 5.44.

The first question was badly phrased as it could cover two different aspects of social functioning: the qualitative and the quantitative. It would have been better to have asked (a) are you satisfied with your present social life? and (b) are you satisfied with your ability to get on with people?

As it has been shown in section 2, the schizophrenic may find himself in an environment which is critical and one in which the relatives' expectations for him may be different from his own. In order to get some measure of their expectations, the relatives of the schizophrenics in this study, were asked (a) whether or not they were satisfied with the schizophrenic's social functioning and ability to get on with people; and (b) if not, what they would like to see him doing. The answers to these questions were as follows:

<table>
<thead>
<tr>
<th>(a) Satisfaction</th>
<th>Schiz</th>
<th>Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Quite satisfied</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Not really satisfied</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>23</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(b) Goals</th>
<th>Schiz</th>
<th>Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting a job</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Meeting more people &amp; making friends</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Having a girlfriend</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Joining clubs</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Getting out a bit more</td>
<td>-</td>
<td>5</td>
</tr>
</tbody>
</table>
Most of the schizophrenics and their relatives were not satisfied with their current social lives. Of the five schizophrenics who were satisfied, three seemed to be coping extremely well and were in employment but the other two were very impaired and probably only able to cope with a very limited existence at the time of interview. Data from the relatives' of two of the three 'satisfied' coping schizophrenics was not obtainable by interview as they lived too far away from the area in which the study was conducted.

The schizophrenics and their relatives both identified similar areas for activities or 'goals' but it was the schizophrenics, more than the relatives, who saw these as desirable. The schizophrenics therefore presented a picture of being generally dissatisfied socially and wanting to go to work, to have a girlfriend, to meet people and make friends and to go to special interest clubs. This came from the schizophrenics themselves and did not seem to be merely a reflection of their dissatisfied relatives' wishes for them.

**Summary of results of Semi-Structured Interview**

The Semi-Structured Interview provided a picture of the unemployed schizophrenic having many opportunities for social contact and interaction although maybe not necessarily taking advantage of these. It gave information on situations which some of the subjects found difficult and how, although the majority wanted to be able to behave differently in these situations, others, because of the way they cognitively construed the situations, did not want to make any changes. It would seem that the schizophrenics when confronted with a difficult situation, did go through the translation process and selected responses by rejecting others on the basis of fear of negative consequences and to a lesser extent because of limited behavioural repertoire and/or social knowledge and negative self-cognition.

In the longer term, the schizophrenic would like to be employed, to mix with more people, make more friends and to join more social, sports or special-interest clubs. His relative is likely to have similar goals for him. The results of the Interviews are discussed in sections 6.2.2, 6.2.3 and 6.2.5. The Semi-Structured Interview is critically appraised in section 6.4.3.6.
5.8. RELATIONSHIP BETWEEN THE RESULTS OF THE TESTS

TABLE 5.45

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CONVERSATION TEST (overall social skill)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. GOAL/BEHAVIOUR (overall social skill)</td>
<td>**.67</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. SOCIAL COPING (Conversation Scale)</td>
<td>**.46 **.54</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. SOCIAL COPING (Social Exposure)</td>
<td>**.57 **.58 **.62</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. SOCIAL PERCEPTION (Male dominant scenes)</td>
<td>**.33 **.37 **.43 **.28</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. SOCIAL PERCEPTION (Heterosocial female)</td>
<td>**.31 * .26</td>
<td>.00</td>
<td>.21</td>
<td>.08</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. SOCIAL PERCEPTION (Heterosocial male)</td>
<td>**.52 **.58 * .29 **.35 **.43</td>
<td>.01</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. SOCIAL SITUATIONS (Social Scale)</td>
<td>**.34 **.33 * .29 * .27 * .23</td>
<td>-.02</td>
<td>.20</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. SOCIAL SITUATIONS (Home Scale)</td>
<td>.05 * .16 * .27 * .21 .17</td>
<td>-.09</td>
<td>.02</td>
<td>.30</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. SOCIAL SITUATIONS (Neighbourhood Scale)</td>
<td>.14 .13 .20</td>
<td>-.03</td>
<td>.14</td>
<td>-.23</td>
<td>.10</td>
<td>-.02</td>
<td>-.02</td>
<td>-.06</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**p < .01     * p < .05

It can be seen from the above table that there were very strong relationships between most of the measures which tested the various aspects of the social skills model (behaviour, goals, cognitions, perception). There was considerably less association between these measures and the scales of the Social Situations Questionnaire (which was concerned with the frequencies of various social activities).

It can be seen that there was a significant relationship between the two behavioural measures of social skill (the Semi-Standardized Conversation and the Goal/Behaviour Role-Play Test) and that these two measures were also highly correlated with the other measures related to the social skill.
model - the scales of the Social Coping Questionnaire and the Social Perception Test.

There was also a significant association between the behavioural and cognitive measures (although not measures of perception) and the social scale of the Social Situations Questionnaire. That is, those who interacted more frequently outside the home report that they coped better socially and were also more socially skilled (behaviourally).

There was no association between the Neighbourhood Scale of the Social Situations Questionnaire and any of the results of the other tests. However, the Home Scale was significantly negatively correlated within the Conversation Scale of the Social Coping Questionnaire indicating that those who interacted more in the home saw themselves as less able to cope with conversation (although not with those aspects of social functioning related to social exposure).

The associations (and lack of associations) discussed above provide some evidence for the view that aspects of the same concept (i.e. social skill) were being measured in the study.
5.9. SUMMARY OF RESULTS
This summary recapitulates the main findings of the various procedures. Their importance for a model of social skill and hypotheses set out in Chapters 1 and 2 will be discussed in Chapter 6.

The Semi-Standardised Conversation Test was designed and employed in this research to test the hypothesis that there would be differences between schizophrenics and non-schizophrenics with respect to their non-verbal and verbal behaviour. In addition to analysing (quantitatively) various non-verbal and verbal behaviours suggested by the social skills literature and obtaining qualitative ratings of non-verbal and verbal behaviour and overall social skill, the quantitative variables in the analysis were correlated with the overall ratings of social skill in order to attempt to establish which particular behaviours were related to social skill.

It was found that there were no significant differences between schizophrenics and controls with respect to their smiling behaviour (both amount and number), their redundant face and hand movements, or the number of major posture shifts they made. In terms of their verbal behaviour, there was little difference between the two groups in the number of individual or paired statements made during the course of the conversation, in joining in the conversation (when invited to do so) once it had been started and in the proportion of speaking time spent in talking about other people, the environment or general topics.

There were however, considerable differences between the two groups in looking behaviour, both in the amount and frequency of looks, the differences being greater for looking towards the female stooge than towards the male. The only other non-verbal behaviour included in the analysis which differentiated between the two groups was gesture with the controls making significantly more gestures than the schizophrenics. Looking behaviours and gesture were the only non-verbal behaviours which were highly correlated with social skill.

Analysis of the verbal elements showed that these schizophrenics spent a significantly smaller proportion of the total time speaking (excluding hesitations); they tended to make fewer and shorter commentaries (defined
as three or more consecutive statements), shorter responses to all the questions (more single statement responses and fewer responses in the form of a commentary) and more time hesitating. They tended to take longer to open the conversation, hesitated longer when required to maintain it. They also made significantly fewer follow-up statements, and asked fewer questions and follow-up questions of the stooges. Analysis of the content of the conversation showed that although both groups spent the highest proportion of total speaking time talking about, or with reference to themselves, the schizophrenics spent significantly longer doing so than the controls, although this was not found to be correlated with social skill. Verbal behaviours which both differentiated between the two groups and correlated with social skill were, (a) the percentage of total time spent speaking, (b) the number (but not the length) of commentaries, (c) the duration of response to question 4 and 5, (d) the number of single-statement answers and the number of answers in the form of a commentary, (e) hesitations in the opening, and generally, and (f) the maintaining phase of the conversation, follow up statements and questions, and (g) questions generally. These behaviours are particularly important in relation to social skill and schizophrenia. The only behaviours which were found to be correlated with social skill and failed to discriminate between the two groups was the number of statements made and the number of responses to questions consisting of two statements. It would therefore seem that although these behaviours are related to social skill, they are behaviours which the schizophrenics manage in this sample adequately.

There were significant differences between the groups on all the qualitative ratings of verbal and non-verbal behaviour and overall social skill, but the differences were least for appropriateness of conversation.

Whereas the Semi-Standardized Conversation Test was designed to assess conversational skills, the Goal/Behaviour Role Play-Test was designed primarily to examine and rate behaviour in relation to the subject's goal in a number of situations identified as requiring either positive or negative assertive response. This test was developed and used in this research to look at (1) differences between schizophrenics and controls in the assertiveness of their goals; (2) differences in behavioural responses between schizophrenics and controls, and (3) differences between the two groups in social skill if ratings (of social skill) were made taking into account the subject's goal.
There was little difference between the goals of the two groups for the four positive scenes but for the negative scenes, particularly those involving unfamiliar figures, the goals of the schizophrenics tended to be less assertive than those of the controls.

Verbal behaviours included in the analysis were: the number of statements made by the subject, demanding a response from the interpersonal partner, compliance and requesting the partner to change his/her behaviour in the negative scenes, showing verbal appreciation and spontaneous positive behaviour (verbal) in the positive scenes. In addition, ratings were made by three independent raters of appropriateness of verbal content.

There was little difference between the two groups in whether or not they demanded a verbal response from their partner and in showing appreciation in the positive scenes. In the negative scenes, the schizophrenics were only slightly less compliant than the controls. However, the controls tended to request some behavioural change from their partner more frequently than the schizophrenics and the difference was significant for the scenes involving male partners. Although most of the subjects showed appreciation verbally in the positive scenes, there was a slight tendency for the schizophrenics to exhibit spontaneous positive behaviour less than the controls.

The most consistent differences across situations between the two groups in verbal behaviour of appropriateness of verbal content \( p \leq 0.05 \) for seven out of the eight situations) and in the number of statements made (with schizophrenics making significantly fewer statements than the controls on six out of the eight situations). The number of statements was also found to be highly correlated with overall social skill. These results are consistent with the finding of the Semi-Standardized Conversation Test that the proportion of time speaking differentiated between the sample and was also highly correlated with social skill. Also consistent with the findings of the Conversation Test was the fact that the differences between the two groups was less for ratings of verbal content than for other behaviours.
The only non-verbal behaviours included in the analysis were touch, vocal tone and general non-verbal behaviour. There was a slight tendency for the control group to touch their partners more than the schizophrenic group. (Touch was found to be correlated with social skill for one particular scene). The differences between the two groups on the qualitative ratings of vocal tone and non-verbal behaviour were, however, significant (p < .0001 for all scenes). Ratings of social skill were made with reference to the subject's goal in the situation. Significant differences however, were found between the two groups on ratings for social skill for all eight situations (p < .0005) even when the goal was taken into account.

The Social Coping Questionnaire was designed to assess differences between schizophrenics and controls in how they view their own social behaviour in terms of coping with various aspects of conversation and with some selected social situations generally. To obtain information on the reliability of the schizophrenics' judgements of their own behaviour the results of this questionnaire were compared with those of the relative's version and of the Semi-Standardised Conversation Test.

There were significant differences between schizophrenics and controls on all the variables of the questionnaire; discriminant analysis predicted group membership with 93% accuracy. Using factor analysis, two scales were constructed, one concerned with various aspects of conversation, the other relating to situations in which there was a high degree of social exposure. Comparison of the schizophrenics' scores and the scores of the relatives showed that the pattern of responses derived from the means was very similar, with the relatives rating the schizophrenics slightly lower than they had rated themselves, the differences being least for behaviours or activities which were easily observed by the relative, greatest for those which were less likely to be observed.

Data about specific situations which might cause difficulty for the schizophrenic was obtained by a Semi-Standardized Interview. Questions were asked in such a way as to gain access to the subjects' goals and cognitions about themselves and the situations. In every situation except making requests of others, most of the schizophrenics who found the situation difficult wanted to do something different in the situation. Those who wanted to make no change chose to do so on the basis of strong
cognitions about what ought or ought not to be done. In behaving as they did in these situations, (even though they would prefer to make other responses), they did so mostly because of fear of negative consequences resulting from their preferred response followed by negative self cognitions and limited behavioural repertoire and/or social knowledge. This suggests that schizophrenics do go through a translation process and highlights the need for careful cognitive assessment in relation to social skill.

Social perception is an important process in the social skills model suggested by Argyle & Kendon (1967). The Social Perception Test used in this study was developed in order to assess social perception and to test the hypothesis that there will be differences between schizophrenics and controls in the way in which they perceive social events.

The test consisted of three short videotaped scenes and the subject was asked questions relating to the actors' feelings, behaviour, intent (goals) and achievement of goal. All the scenes involved two characters.

There were no significant differences between the groups in their ability to identify the feelings of the characters in all but one of the scenes; nor in their ability to specify the various characters' goals in the three scenes. However, there were significant differences between the schizophrenics and controls in their assessment of whether or not the goal had been achieved for all three scenes with over 50% of the schizophrenics who were able to identify the goal correctly unable to say whether or not it had been achieved (compared with less than 5% of the controls). There were also significant differences between the two groups with respect to the number of behaviours the subjects could identify, with the controls identifying more of these than the schizophrenics.

The characters who were least wrongly perceived were those whose behaviour was fairly gross and generally associated with anxiety and those who were most often misperceived were those whose verbal behaviour was contradicted by their non-verbal behaviour. It was also found that the character who presented least difficulty for interpretation of feelings was the one for
whom most behaviours were specified and vice versa. Three distinct types
of misinterpretation were identified: (1) where the interpretation was
based on interpretation inferred from their perception of the other
person's behaviour, (2) where the interpretation, although inaccurate was
based on accurate observation of the person's behaviour, and (3) where the
misinterpretation was based on faulty observation of the behaviour.

In order to examine whether subjects were responding to the scenes, or to
the questions relating to different aspects of perception, the results were
analysed using the SPSS factor analysis procedure. This showed that the
items of the test grouped together in types of situation suggesting that
perception (as well as behaviour) might be situation-specific. Differences
between schizophrenics and controls on all three of the derived scales was
significant.

The Social Situations Questionnaire was designed to examine differences
between schizophrenics and controls in the frequency of exposure to social
or potentially social situations. Although this information may not
necessarily be directly related to social skill, it is important to
establish the kind of social environment and social opportunities which
might exist for any potential client for social skills training.

It was found that, not surprisingly, the greatest differences between the
schizophrenics and controls were on those items which required greatest
social contact, e.g. making telephone calls, friends visiting the house,
going to places other than pubs, cafes or restaurants to meet and talk to
people, and the least differences for those items which made fewer social
demands, e.g. going to the bank or Post Office alone.

Using the factor analysis procedure, three scales were constructed: a
social scale (social activities taking place outside the home), a home
scale (activities taking place within the home) and a neighbourhood scale
(activities in the neighbourhood). There were significant differences
between the schizophrenics and controls on the home and social scales, with
schizophrenics engaging in these various activities less frequently than
the controls, but the difference between the groups was small on the
neighbourhood scale.
The Social Situations Questionnaire enabled comparisons to be made between the schizophrenic and the control group but in order to give a more comprehensive picture of how the schizophrenic spends his time and who he interacts with, the subject was asked questions relating to this during the Semi-Standardized Interview. It was found that all the schizophrenics had plenty of opportunity for social interaction and spent some time during the day with other people either at day centres, in pubs, cafes or with friends.

When asked whether they were satisfied with their current social life and ability to get on with people, 15 answered that they were not (as compared with 16 relatives who were not satisfied with their schizophrenic relative's social life). Twelve mentioned wanting to get a job, ten meeting people and making more friends, nine having a girlfriend, seven joining special interest clubs. The relatives mentioned similar areas but the items were mentioned less frequently by the relatives than by the schizophrenics. This could be taken to mean that it is the schizophrenics themselves who want to expand their social activities and not the relatives pressurising them to do so.

Relationship between tests
Social skill is generally argued to be situation specific. That is, an individual may be socially skilled in one situation and not in another. There were, however, high correlations between ratings of social skill on all eight situations of the Goal/Behaviour Role-Play Test. This might have been accounted for by the fact that the situations were all classified as 'assertive', but when a combined score for social skill on all the assertive scenes was calculated and correlated with the score for social skill on the Conversation Test, the correlation was still high, indicating that those who had scored highly on the Goal/Behaviour Role-Play Test also had high scores in the Conversation Test and those with low scores similarly. Although this study did not set out to test the hypothesis that social skills is situation-specific, little evidence for this was found.

In order to examine the validity of the subjects' self-report of coping with conversation skills, the results of the conversation scale (derived by Factor Analysis from the Social Coping Questionnaire) were compared with the scores for overall social skill on the Conversation Role-Play Test. It was found that there were discrepancies between the scores for nine
schizophrenics (compared with three of the controls), eight of whose relatives had scored them lower than they had scored themselves on the Social Coping Questionnaire, providing some evidence for the validity of the relatives' ratings. These nine schizophrenics had fewer mean years since onset of the illness, fewer mean months since the last hospital admission and a poorer mean score on premorbid social functioning.

When all the results of the tests were intercorrelated there was found to be strong associations among the measures of social skill (behaviour, cognitions, goals and perception) and also the amount of social interaction outside the home.

Relationship between personal characteristics of the sample and the results of the tests

Because the sample was fairly heterogeneous, it was decided to explore the relationships between the results of the tests and the personal characteristics of the sample (using multiple regression) in order to ascertain whether differences in results were accounted for by any of these characteristics. Independent variables included in the analyses were: verbal ability, social class, chronicity (time since onset), time since last admission and premorbid social functioning.

The regression as a whole was significant only for the Goal/Behaviour Role-Play Test but premorbid social functioning was the only individual variable which was significant in the regression.

Verbal ability was found to be significant in the regressions for the Conversation and the Social Perception Tests (although the regressions as a whole were not significant). This is not surprising: conversation is a highly verbal activity requiring more verbal behaviour than was required in the short assertive scenes of the Goal/Behaviour Role-Play Test, and social perception, whilst not involving verbal behaviour, does require complex cognitive operations. It might be assumed that such operations would require intelligence which is strongly associated with the Mill Hill Vocabulary Test of verbal ability.

This chapter has been concerned with presenting the results of procedures designed to test the hypotheses and explore the issues set out in Chapter 2 and again at the beginning of Chapter 4. These results will be discussed
in relation to the hypotheses and research questions in Chapter 6. Also included in Chapter 6 is a discussion of the research methods employed in this study and of the individual tests, the implications of the results for social skills training and future directions for research.

Footnotes

1 Use of the T-test strictly speaking entails assumptions about the form of the distributions of the variables. Some of the variables did show departures from normality. However the results were so consistent and clear cut that exact conformity to the assumptions were not considered to be a severe problem.

2 In order to give an indication of the strength and significance of the association between each of the performance variables and group membership it was decided to use Kendall's tau C. Although this is used normally as a rank order correlation coefficient, it is proper to use it to measure the association between an ordinal variable and a dichotomy and has the advantage that it provides a numerical measure of the size of the relationship rather than merely of the statistical significance (Nie et al, 1975).

3 The analysis was also carried out omitting the 'don't knows' (as is the usual practice) but as this made very little difference to the results, the 'don't knows' have been included.

4 Although factor analysis uses Pearson correlation coefficients which were originally designed for interval-level variables, several social science methodologists (e.g. Labovitz (1972)) argue that they may be used even if the data satisfy only the assumptions of ordinal-level measurement.
CHAPTER 6
DISCUSSION

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DISCUSSION

6.1. INTRODUCTION
In the previous chapter, the results were presented in relation to the procedures designed to assess the various aspects of the social skill process. This chapter is concerned with (1) a discussion of these results in relation to hypotheses and questions posed in Chapter 2; (2) a critical appraisal of the overall research design and the methods used in the assessment of the subjects; (3) the implications of the results for social skills training; and (4) suggestions for future research.

6.2. DISCUSSION OF RESULTS

6.2.1. BEHAVIOURAL RESPONSE - NON-VERBAL AND VERBAL

Hypothesis 1
There are differences between schizophrenics and non-schizophrenics in their non-verbal and verbal behaviour.

Non-verbal Behaviour—(posture, gesture, facial expression and touch). It was suggested in Section 2.3.2. that the schizophrenics' non-verbal behaviour might be disturbed as a result of the underlying biochemical process involved in schizophrenia and also because of the antipsychotic medication which all but two subjects in the sample were taking. Such disturbances might include excited motor activity and restlessness or a decrease in reactivity to the environment, rigidity and difficulty in initiating movement. Schizophrenics might also smile less in some situations; look at their interpersonal partner less than non-schizophrenics when the topic of conversation is of a personal nature, their movements might be 'out of cycle', their tone of voice monotonous and they may engage in self-touching behaviour.

There was little evidence of excited motor activity and, although the schizophrenics tended to make more posture shifts and redundant facial movements and spend longer making redundant hand movements, the differences between the schizophrenics and controls were not significant.

There was, however, some evidence of difficulty in initiating movement. Schizophrenics made significantly fewer gestures than non-schizophrenics in the conversation and significantly fewer of them touched their male interpersonal partners in the Goal/Behaviour Role-Play Test. (In addition to the variables measured it was noticeable on examination of the video tapes was that whereas the schizophrenics would tend to sit somewhat
rigidly during the conversation perhaps making redundant hand movements and moving their heads to look at one stooge or the other, the non-schizophrenics would appear to spend much more time making often extremely slight postural shifts and head movements. (See Appendix 6.1.). (This postural rigidity was also noticed in the Goal/Behaviour Role-Play Test). Attempts to measure these often minute movements were made but it was found to be extremely difficult to determine the onset and termination of such movements and inter and intra rater reliability was found to be low. The attempts were therefore abandoned).

Although schizophrenics appeared to have more difficulty than non-schizophrenics in initiating movement, they were equally reactive when it came to smiling, both in the amount and the number of smiles made. (Smiling however was not shown in this research or in that of Trower (1982) to be associated with social skill).

Smiling was difficult to assess in a small number of cases (three schizophrenics, two controls) particularly when the mouth of the subject was stretched for quite long periods and also when the smile faded slowly. It was therefore decided to count and time the smile only when the top part of the cheeks and eyes were involved in the movement. In addition, an independent rater was employed to measure smiling for these cases. It was found that the results she obtained were in all cases, very similar and the means of the two raters' measurements were used in the analysis.

No further attempts (other than measuring redundant facial movements and smiling behaviour) were made to examine facial expression. Ethnomethodologists and ethologists have developed methods for examining facial expression in great detail but the sample size and the time available rendered such a detailed analysis impracticable.

Qualitative ratings of appropriateness of facial expression and posture in the conversation and general non-verbal behaviour in the Goal/Behaviour Role-Play Test produced significant differences between schizophrenics and non-schizophrenics. The limitation of qualitative ratings is that they give no further information, only that the behaviour was thought to be less appropriate. Whilst there was no evidence of non-verbal behaviour which
was inappropriate, (with no significant differences between the schizophrenics and non-schizophrenics in quantitative measures of redundant gestures and facial expressions and major posture shifts) the lower qualitative ratings might be accounted for by the reduced reactivity of the schizophrenic group.

Non-verbal behaviour - (looking)
Although earlier work on looking and eye contact suggested that schizophrenic patients display unusual patterns of visual interaction (e.g. Argyle 1967), Rutter (1976, 1978) found that schizophrenics and normal and patient control groups behaved similarly for the most part in this respect, and only showed abnormalities of visual interaction when talking about personal matters.

The amount of time the subject spent looking in the direction of the male and female stooges respectively was measured and the number of glances they made were counted (in the conversation).

Schizophrenics and controls did show similar patterns to some extent in that both groups spent a greater proportion of time looking at, and made more separate looks (per minute) towards the male than towards the female. The mean length of looks was also similar, with both groups making longer glances when looking towards the male than when looking towards the female. The schizophrenics however, spent considerably less time in looking at the stooges and made considerably fewer separate looks. This might be accounted for by the personal nature of the topics of conversation which were to some extent determined by the stooges in that they asked standardized questions about aspects of the subject's life. The schizophrenics did, however, in their responses to the questions, make significantly more references to themselves thereby making the conversation even more personal than it might have been.

Looking has also been shown to be related to listening, and the person listening gives longer glances than the one talking, and tends to look considerably more (Argyle 1969). Low levels of looking by the schizophrenic group might therefore also be a result of fewer listening opportunities (they asked fewer questions, therefore the stooges spoke less) and the fact that they spent a smaller proportion of the time speaking. Unfortunately, looking behaviour was not analyzed in relation to speaking, listening and pauses and hesitations.
Reduced looking in the schizophrenic sample it could be speculated, might therefore be due to a combination of the personal nature of the topics (as suggested by Rutter 1978) and the fact that the schizophrenics spent less time in both talking and listening.

Verbal Behaviour
A number of suggestions have been made about the ways in which schizophrenic verbal behaviour might be viewed (Section 2.2.6, 2.3.2.): For example, the content of his speech may seem bizarre (although the structure of his speech appears intact), it may also be of a more personal nature than the content of the non-schizophrenic and the schizophrenic may have difficulty in considering the needs of his listener in conversation. He may also show retardation of speech (and symptoms of social withdrawal). Rutter, however, found very few differences in the patterns of speech between schizophrenics (acute, remitting and chronic) and normal chest patients, although he did find the schizophrenics less willing than others to speak and retain the floor.

Content of Speech
There was no evidence in this research of any bizarre content of speech, although it was found that the schizophrenics spent a significantly greater proportion of the total speaking time talking about themselves, thereby making the conversation more personal, whereas the controls spoke proportionately more than the schizophrenics about other people, the environment and general topics (although the differences were not significant). Nevertheless, the overall pattern of content was the same for schizophrenics and controls, with both groups spending proportionately the longest time talking about themselves and the shortest about others. Therefore, although the pattern of topics was similar, the results of this research do seem to provide some support for Goldstein's (1944) view that schizophrenics are more influenced by personal ideas and preoccupations and Grant's (1970) findings that schizophrenics were unable to generalize in discussions, and Neale and Oltmans' (1980) conclusions that schizophrenics are sometimes egocentric or autistic.

It would therefore seem, somewhat paradoxically, that schizophrenics, whilst following a similar pattern (in terms of content) to non-schizophrenics, will tend to 'personalize' the content, thereby increasing their level of arousal resulting (according to Rutter) in disturbances of speech patterning and visual interaction.
In terms of the ability of the schizophrenic to consider the needs of the listener, this current study showed that the external raters found considerable differences between schizophrenics and controls in the interest shown in the other people in the conversation and the schizophrenics asked significantly fewer questions of the two stooges in the conversation than the controls, although there was little difference between the two groups in whether or not they demanded a verbal response from the other in the Goal/Behavioural Role-Play Test. Another way in which it has been suggested that schizophrenics fail to take into account their partners in conversation is by interrupting the speech of the other. Although no measurements or ratings were made of interruptions, there appeared to be no evidence of this on further examination of the video tapes.

Much of the theoretical and empirical work on language and verbal behaviour has been conducted with particular reference to conversation. This gives little idea of how the schizophrenics might respond in assertive situations. It might be expected, however, that in negative assertive situations the schizophrenic would avoid confrontation or argument in an attempt to avoid an increase in arousal that this might trigger. In positive assertive situations, he may be less likely to be verbally appreciative because of his difficulty in considering the needs of his partner.

It might be supposed that in wishing to avoid possible confrontation, the schizophrenic would be more compliant (in the negative situations) than the controls, but there was no significant difference between the groups in this respect. Where the difference lay was in whether or not the subject followed up his non-compliance with a request for the other person to change his behaviour (e.g. for the woman who had butted in in the supermarket queue to go to the back of the queue). Schizophrenics were less likely than the controls to make such a request and this was significant for the scenes involving men. It is reasonable to suppose that men presented a greater possible threat than women to the schizophrenic subjects and this would account for the differences between the groups being greater for scenes involving men than for those involving women.
Both schizophrenics and controls showed appreciation verbally in the positive scenes, although there was a very strong requirement for them to do so, e.g. the man who had done well in the darts match saying to the subject, "Well, how about that then?" Assessment of this area of functioning might have been more useful if the response demands had not been so great and the stooge had said something like, "I enjoyed that game", giving the subject the opportunity to respond with "Yes, I thought you played very well", but not demanding it. Nevertheless, there was little difference between the two groups in whether or not they followed up their appreciation with any spontaneous positive behaviour (which was not demanded in the context of the situation).

The demonstration of verbal appreciation was only analyzed in terms of presence or absence. In spite of the fact that almost all the schizophrenics and controls showed appreciation when required, the schizophrenics were rated (by the external raters) very much lower on verbal content than the controls. One of the limitations of ratings of this kind is that it is not known what the raters were actually rating. The quantitative analysis showed that the schizophrenics spoke less (significantly so, on three out of the four positive assertive scenes) and this might be an important factor in accounting for the lower ratings for verbal content of the schizophrenic group.

Arousal appears to be an important factor in negative assertive situations in which it would seem that as predicted, schizophrenics will avoid asking the other person to change their behaviour (which, it is reasonable to suppose, could lead to an argument or confrontation), but on the other hand, they are no less likely than non-schizophrenics to comply with the other person's unreasonable request. (This in effect might mean that, whilst not giving in to the other person, the schizophrenic does not take steps either to solve the problem or to get into a position in which some negotiation might take place. Whilst in some situations this might be an appropriate response, in others, (e.g. a work situation) a straight refusal to comply could have negative consequences).

The schizophrenics therefore did not seem to have any difficulty in expressing appreciation verbally when it is demanded of them but, as in the
negative scenes, they tended to be less able (although not significantly so) to follow this up (in the positive scenes) spontaneous positive (verbal) behaviour which would seem to indicate more a failure to keep going verbally than a lack of consideration of the others' needs.

Verbal Behaviour – pauses and hesitations
There were considerable differences between schizophrenics and controls in the percentage of time taken up with hesitations in speech and in the length of pauses at the planned stages of the conversation (i.e. when the subject was given no help by the stooges in maintaining the conversation. Clark (1971) has suggested that pauses may occur either before major clauses (conventional) or before particular words (idiosyncratic), and Rochester et al (1977) found that thought disordered schizophrenics differed significantly from other schizophrenics and normals in the duration of initial silent pauses and conventional hesitation but not in idiosyncratic pauses. The results of this study suggest that remitted schizophrenics too have some difficulty in starting the conversation and also in maintaining it when given no help, but less difficulty in joining in when invited to do so. No distinction was made in this study between conventional and idiosyncratic pauses. Such analysis would have been too detailed for this study and requires particular expertise. It has however, been suggested (in section 2.3.2.4.) that pauses and hesitations may occur in schizophrenic speech because of the necessity for planning those sequences which may have been habitual in the premorbid schizophrenic or which are habitual in non-schizophrenics. So, for example, it becomes almost 'automatic' for a normal person, on being asked about hobbies or interests, to ask the interpersonal partner about his/her hobbies and interests. Further analysis of the data did indeed show such a pattern for the control subjects; they tended to start with "And how about you – what do you......etc.?” or "And what about you....?” It would seem that this is a response in the control subjects' repertoire but one which maybe the schizophrenics had to consider consciously.

Verbal Behaviour – frequency, duration, maintenance and handover mechanisms
Lack of verbal stamina, on the face of it, appeared to be one of the major difficulties for the schizophrenic group and whilst poverty of speech has long been recognized as one of the main characteristics of schizophrenia, little attention has been paid to this aspect of verbal behaviour in the theoretical or empirical literature.
With the exception of the number of attention feedback responses and the number of paired or single statements made, there were large differences between the two groups on every other type of verbal response that was timed or counted in the Conversation Test, and in the number of statements made in the assertive scenes in the Goal/Behaviour Role-Play Test.

Contrary to Rutter's (1978) findings, the schizophrenics in this sample showed marked differences from the controls in maintaining and handing over the conversation. Their pattern of responses to questions was similar to the non-schizophrenics, i.e. they gave their longest response and shortest response to the same questions as the controls albeit significantly shorter for all six questions. They were nevertheless much less likely to follow this through with a question to their listener, thereby handing the conversation over. It was also noticeable that more than a third of the sample launched into commentaries of more than 30 seconds (after the question period), again, failing to hand over the conversation.

There could be a number of explanations for these results.

(1) That schizophrenics lack verbal stamina, i.e. the ability to keep going in terms of verbal content. Yet whilst the schizophrenics undoubtedly talked less than the non-schizophrenics there were some who, once started, seemed to carry on without handing over the conversation. Lack of verbal stamina does not seem to account for the smaller numbers of questions asked by schizophrenics nor for making fewer follow-up statements.

(2) That they have a lack of responsiveness to the other person. Schizophrenics did make fewer responsive statements (follow-up statements) and follow-up questions than the controls and yet there was no difference between the two groups in the number of attention feedback responses they gave. Indeed, as the schizophrenics asked fewer questions, the stooges tended to speak less in the conversations with schizophrenics. The rate of attention feedback responses may therefore have been higher for the schizophrenics than for the controls. The schizophrenics therefore did show considerable evidence of responsiveness in the conversation; but more in terms of 'non-content' statements (e.g. 'oh really', 'did you?' etc.) rather than follow-up statements.
That schizophrenics have difficulty in switching from one type of response to another. For example, they were less likely to ask follow-up questions after giving answers to the six questions; and in the Goal/Behaviour Role-Play Test, whilst not complying with unreasonable requests, they were less likely than the controls to go on to make a request of or give directions to the other person. This might also explain why some of the schizophrenic subjects appeared to get 'stuck' and have difficulty in handing over the interaction and indeed in ending their commentaries. The fact that this did not seem to happen in response to the questions might be due to the rather specific nature of the questions, i.e. they required a finite response.

Difficulty in proceeding to a different type of response does not, however, account for the fact that the schizophrenics asked fewer questions overall than the controls.

That schizophrenics are reluctant to make interactive demands on their partners. The schizophrenics seemed to be less willing than the controls to involve their partners either verbally (by asking questions) or as listeners (by giving shorter responses to questions in the conversation and shorter responses generally in the Goal/Behaviour Role-Play Test).

Although in the Goal/Behaviour Role-Play Test the schizophrenics were less willing than the controls to demand some form of action from their partners, it was not possible to draw any conclusions about whether or not they were less willing to make demands for a verbal response from their partners. Either as a result of the research situation or because of the nature of the assertive situations themselves, as few controls as schizophrenics demanded a verbal response from their partners.

It is unlikely that any one explanation will account for the differences in verbal behaviour between schizophrenics and non-schizophrenics. The evidence from this research however, would suggest that schizophrenics may not be any less verbally responsive than non-schizophrenics, but that they may have difficulty in proceeding from one type of response to the next, which would imply a skills deficit, and be unwilling to make interactional demands on their partners, which would most likely be related to the way in which the schizophrenic cognitively construes the situation. Indeed, the results of the semi-structured interview (section 5.7.) show that the schizophrenic tends to think that he ought not to make demands on others.
The hypothesis that there will be differences between schizophrenics and non-schizophrenics in their non-verbal and verbal behaviour was therefore only partially confirmed.

There was no difference in non-verbal behaviour between the groups in:
- The amount of smiling or number of smiles.

There were some differences (although not significant) in:
- The number of posture shifts.
- The amount of redundant movements of both face or hands.

There were significant differences in:
- The number of gestures used.
- The amount of touching (in relevant situations).
- The amount and frequency of looking behaviour.
- Qualitative ratings of general non-verbal behaviour.
- Tone of voice, facial expression, looking and posture.

Verbally there were no differences between schizophrenics and controls in:
- The number of short (one or two statements) responses made in conversation.
- The number of attention feedback responses
- The demand for a verbal response. ) in assertive
- Compliance to unreasonable demands.  ) situations
- The expression of appreciation when required.

There were considerable differences between the two groups in:
- The amount of speech.
- The length of response to questions.
- The number of questions asked.
- The number of responses to questions ending in a question.
- The number of follow-up statements.
- The amount of time spent talking about self in a conversation.
- Requesting a change in unreasonable behaviour in assertive situations.
- Showing spontaneous positive behaviour in some situations.
- Qualitative ratings of interest value of conversation, interest shown in the interpersonal partner, appropriateness of verbal content.

Finally, there were very significant differences between the two groups in qualitative ratings of overall social skill.
6.2.2. COGNITIONS - SELF & SITUATIONS (Discussion)

Hypothesis 2
There will be differences between schizophrenics and non-schizophrenics in self-cognitions relating to social behaviour.

Research Question 1
How accurate are the schizophrenic's self-cognitions in relation to his social functioning?

Research Question 2
In what ways do schizophrenics cognitively construe situations which they identify as difficult?

Self-cognitions
It has been suggested (Section 2.3.2.1.) that the schizophrenics' self-cognitions may be disturbed or distorted by the intrusion of irrelevant thoughts or negative cognitions as a result of a history of social impairment.

Significant differences were found between schizophrenics and non-schizophrenics on every item of the Social Coping Questionnaire, (designed to assess self-cognitions relating to aspects of social behaviour and social functioning). The implication of a negative view of self is that it may (as indeed has been shown (Mandel and Stranger 1980, section 1.6.1.)), influence adversely subsequent behaviour.

Consideration of self-cognitions about social functioning inevitably raises the question of their accuracy. It is reasonable to suppose that such cognitions are derived to some extent from the self-monitoring process during the course of interactions. That is, the individual monitors his behaviour (successes and difficulties) during the course of interactions and his perceptions of his behaviour are translated into more generalized cognitions about his own social abilities and functioning. In order to examine the accuracy of the subject's self-cognitions, self-ratings from
the Social Coping Questionnaire (conversation scale only) were compared with the overall ratings in social skill in the Semi-Standardized Conversation Test for all subjects and self-ratings (for all items of the Social Coping Questionnaire) were compared with the relatives' version of the Social Coping Questionnaire. It is appreciated that whereas the Semi-Standardized Role-Play Test is a specific situation, the Conversation Scale of the Social Coping Questionnaire refers to conversation more generally, and so the two scales are not strictly comparable. However, as no rating was obtained from the subjects on their performance in the Semi-Standardized Conversation at the time, comparison of the scales may give some indication of the way in which the subject views his ability to cope as compared with others' judgements of his social skill.

There is also a possibility that, in comparing objective ratings of social skill with subjective ratings of coping, two different constructs are being measured. It was however thought that the term 'cope' would be as close as was possible to eliciting a response about social skill. (See section 4.4.3.).

It can be seen from the results that there was a strong tendency for both schizophrenics and non-schizophrenics to rate their ability to cope (on the Conversation Scale of the Social Coping Questionnaire) higher than the external raters rated them in the Semi-Standardized Conversation Test, and the tendency was stronger in the schizophrenic group. The schizophrenics also rated themselves higher on the Social Coping Questionnaire than the relatives rated them. That the controls tended to rate themselves higher than the score given by independent raters is compatible with the findings of Curran, Wallander and Fischetti (1980) that their controls tended to rate their performance in role-play higher than independent observers. However, whereas they found that those judged socially unskilled tended to be in more agreement with the low ratings of skill of their external raters (i.e. they had a more realistic view of their own performance), the schizophrenics in this sample tended to exaggerate the tendency to an enhanced view of social functioning found in the control group. Nevertheless, only two schizophrenics were misclassified in the discriminant analysis. One of those appeared to be functioning well and (demonstrated by high scores on most of the tests). The other was very
impaired and obtained low scores on all the tests. It would therefore seem that only one of the schizophrenic sample had a very distorted view of his ability to cope. It is possible that in order to cope, the socially unskilled schizophrenic may compensate for his very negative view of his poor level of social functioning by developing a somewhat enhanced (though still negative) view of his abilities.

The hypothesis that there will be differences between schizophrenics and non-schizophrenics in self-cognition relating to social behaviour was confirmed. The results do however not resolve the question of whether schizophrenics generalize these cognitions to more fundamental aspects of their person or experience (e.g. 'I can't cope with maintaining a conversation, therefore I'm no good with people, therefore I'm worthless').

Cognitive construal of difficult situations

It has been suggested (Section 2.3.2.1.) that the schizophrenic's cognitions relating to social situations might be disturbed or distorted by the underlying thought disorder, and influenced by a history of social failure in situations. The way in which situations are cognitively construed is complex and will be determined by many factors, including how the individual feels in such situations, his skills in handling situations, how he thinks he performs, what he thinks he ought to do and his social knowledge of such situations. However, theory relating to the way in which individuals cognitively construe situations and how cognitive representations are developed is not sufficiently well formulated to make the construction and testing of hypotheses a useful or valid operation. At this stage, exploration of the concept was considered to be more fruitful, and this was done by means of the Semi-Structured Interview.

What emerged most strongly from the analysis of responses to questions about difficult situations was the part that cognitions played in explanation, both in terms of negative self-cognitions and fear of negative consequences or what the schizophrenic subject thought he 'ought' to do (or not do). The tendency of schizophrenics not to make interactive demands on partners in conversation has been discussed above and it would seem that the schizophrenic takes this even further and believes that he ought not to make requests of other people. In all the other situations the
schizophrenics did, for the most part, want to make changes. With the exception of dealing with criticism and apologizing (which 50% of those who found this difficult stating they did not know how (behaviourally) to do this), the explanations of why they could not achieve their desired goal were related to cognitive factors.

It would therefore seem that the inability of schizophrenics to achieve their desired goals in difficult situations has a large cognitive component, (although the results should be treated with caution, in view of the small sample and limited number of responses).

The hypothesis that there will be differences between schizophrenics and non-schizophrenics in self-cognitions was therefore confirmed; the schizophrenics had a considerably more negative view of their ability to cope with aspects of social interaction than non-schizophrenics.

It was considered that the study provided some answers to the question of the accuracy of schizophrenics' self-cognitions about social coping. The schizophrenics' self-cognitions appeared to be reasonably accurate, but slightly enhanced, when compared with their relatives' view of them and with ratings of external assessors.

Only tentative conclusions can be drawn about the schizophrenics' cognitive construal of difficult situations. However, analysis of the Semi-Structured Interview material did highlight the important role which negative self-cognitions and fear of negative consequences played in situations which schizophrenics found difficult or avoided.

6.2.3. GOALS (Discussion)

Hypothesis 3
There will be differences between schizophrenics and non-schizophrenics in the way in which they formulate their goals in positive and negative assertive situations.

Hypothesis 4
Schizophrenics will be found to be quite content with their current social life and ability to get on with people. Thus they do not have long-term goals of a social nature.
Research Question 3
Is there a discrepancy between the schizophrenics' social goals and those of his relatives for him?

It has been suggested (Section 2.3.2.) that the schizophrenic's goals in potentially negative situations may be to avoid or extricate himself from the situation in an attempt to reduce his level of arousal. He may find positive situations unrewarding and formulate less positive (assertive) goals in situations demanding more positive behaviour, his longer-term social goals may have been extinguished by a history of unsuccessful encounters and social failure and he may appear to show a lack of motivation. In addition, his social routines (the more automatic behaviour which, Argyle suggests, most people employ in the short-term to deal with every day situations) may be inadequately developed or may have been seriously interrupted, necessitating more planning in order to maintain goal-directed behaviour.

Assessing the schizophrenics' goals was a particularly important aspect of this research. If schizophrenics do have, as suggested in section 2.3.2., different kinds of goals from non-schizophrenics, this has significant implications for training. Short-term goals related to specific situations were assessed using eight of the situations from the BRT-R (Eisler et al 1975) (section 4.6.2.) and longer term social goals were explored in the Semi-Structured Interview. (Section 4.4.6.).

Behavioural goals in negative situations
There was very little difference between the goals of the schizophrenics and non-schizophrenics in the scenes in which the interactive partner was supposed to represent a familiar person (either male or female). It is interesting to note that slightly more schizophrenics had assertive goals than non-schizophrenics in the male familiar scene (in which the boss asks the subject to stay late on a job). More of the controls had goals which allowed for some negotiation although when it came to the role play more of the controls were non-compliant than the schizophrenics. The schizophrenics therefore tended to be slightly more rigid in their goals and less assertive in their behaviour than the controls. In spite of the recent emphasis on goal-directed behaviour in the social-skill literature
and the suggestion that schizophrenics show a lack of such behaviour (Bleuler 1911), it would seem that there might be certain situations (such as that described above) where an initially clearly defined goal is less appropriate than in other situations, and where social skill might depend on the ability to reformulate goals during the course of the interaction in the light of perception of another's response. This comes closer to Trower's (1980) idea of social skill (as contrasted with social skills - Section 1.5.) in which the emphasis is on behavioural flexibility in response to accurate monitoring, although he does not discuss the necessity for the reformulation of goals as a result of the monitoring process.

Although there were only slight differences in the goals of schizophrenics and of controls in negative scenes, where the stooge represented a familiar figure, there were considerable differences when the stooge represented an unfamiliar figure, either male or female (section 5.3.). However, when it came to role playing the situation, there was little difference between the two groups in compliance; this was because more schizophrenics who had a partly or non-assertive goal, compared with controls with similar goals, did not comply in the situation.

It can therefore be seen that in three out of the four negative assertive scenes there tended to be a discrepancy between the schizophrenics' goals and their behaviour, with the schizophrenics not only less able to engage in goal-directed behaviour than non-schizophrenics, but for their goals in negative situations, where the person is unfamiliar, to be significantly less assertive. This could be interpreted as an attempt by the schizophrenic to lower his level of arousal by planning to submit in a situation in which he has no clues as to the other's response. It is possible that a situation in which the interpersonal partner is a stranger and no clues are provided about his possible behaviour (or in which cues may be badly perceived or misinterpreted) would be more anxiety-provoking than one in which the partner is familiar. Planning to confront when the person is unfamiliar may therefore be too anxiety-provoking for the schizophrenic and his less assertive goal may, in fact, enable him to be more behaviourally assertive than planned.

It had been thought that sex differences might arise in this test as a function of the test situation, as the female stooge was the researcher
who had already presented herself as friendly and non-threatening and had
had the opportunity during the interview stage of the research to develop
rapport with the subjects. The male stooge was previously unknown to the
subject except as the male stooge in the conversation. That these
differences did not occur gives some support to the validity of the test.

Behavioural goals in positive situations
There were virtually no differences between schizophrenics and
non-schizophrenics in their goals in positive assertive situations; almost
all the subjects in all four scenes expressed a positive goal. However,
with the exception of the scene in which the boss had offered the subject a
rise, all the scenes made quite strong demands for positive behaviour, e.g.
'How about that then?' (after getting a good score at darts and winning the
match for the team), 'Did you enjoy your dinner, sir?' (from the waitress
in the restaurant in which the subject had enjoyed a good meal). Perhaps
more useful information would have been obtained if the situation had made
fewer response demands on the subject and the situation was one in which
the subject was free to initiate a positive response if he chose to.

Unlike the negative assertive scenes, there were no discrepancies between
the subjects' goals and their responses, with all the subjects showing
appreciation in the situations as well as having positive goals.

Longer-term social goals
A large proportion (17 out of 23) of the schizophrenics were not satisfied
with their current (somewhat impoverished) social life, as compared with
the remaining six, who were either quite satisfied or satisfied. Over half
the sample wanted to get a job and slightly less than half wanted to meet
more people and have a girlfriend. Seven out of 25 wanted to join special
interest clubs. Although no comparisons were made with non-schizophrenics
with respect to their level of satisfaction with their social life and
future goals, it would seem that getting a job (in a predominantly
unemployed population), getting a girlfriend (in an unmarried population),
meeting people, making friends and joining clubs (in a population with a
limited social life) provides some evidence for supposing that
schizophrenics might have similar social goals to non-schizophrenics.
These results also disconfirm the popular conception of a lack of
motivation in schizophrenics. (See for example Curran & Monti (1982,
p.28).
Relatives' goals for schizophrenics

The relatives tended to be somewhat less satisfied than the schizophrenics with the social life of the schizophrenic, 17 were not really satisfied or dissatisfied and only one quite satisfied. Somewhat surprisingly on the face of it only three mentioned they would like to see their relative getting a job (as compared with 12 of the schizophrenics themselves). However, as shown by the comparison of the two versions of the Social Coping Questionnaire with the more objective evidence of the Semi-Standardized Conversation Test, the relatives possibly have a more realistic idea of the schizophrenics' social functioning than the schizophrenics themselves, who tend to have a slightly enhanced view. The relatives' goals for the schizophrenics might therefore have been mediated by their appraisal of the schizophrenics' ability to cope with a work situation. The other activities the relatives mentioned were not very much different from those the schizophrenics mentioned, with eight relatives wanting the schizophrenic to meet more people and make friends (as compared with ten schizophrenics), five relatives wanting the schizophrenic to have a girlfriend (as compared with nine schizophrenics) and five wanting the schizophrenic to get out a bit more (seven schizophrenics stated they wanted to join a special interest club).

Therefore in this study very little difference was found between schizophrenics' and non-schizophrenics' in their behavioural goals in positive assertive situations and in negative assertive situations where the partner (male or female) was familiar. There were, however, some differences when the partner was unfamiliar and in those situations the schizophrenics tended to have less assertive goals, possibly in order to lower their level of arousal in the situation. The hypothesis that there will be differences between schizophrenics and non-schizophrenics in the way in which they formulate their goals in response to positive and negative assertive situations was therefore only partially confirmed.

The hypothesis that schizophrenics will be found to be quite content with their current social life and ability to get on with people was not confirmed and it was found that most of the schizophrenics did want to increase their social contacts and lead a more active social life.
In answer to the question of whether there was a discrepancy between the goals of the schizophrenics and those of their relatives for them, the relatives were only slightly more dissatisfied than the schizophrenics and they mentioned fewer and less specific activities that they would like the schizophrenics to engage in.

6.2.4. SOCIAL PERCEPTION (Discussion)

Hypothesis 5
There will be differences between schizophrenics and non-schizophrenics in their perceptions of situations.

It was suggested (Section 2.3.2.4.) that the schizophrenic might have difficulty in attending selectively to relevant stimuli in the environment, and that he may, even if not suffering from gross perceptual disturbances, have other perceptual difficulties such as difficulty in discriminating both visual and auditory 'signals' from 'noise' in the environment. He may also have difficulty in identifying emotion in others and when verbal messages are given in a contradictory emotional tone of voice, he may be over-influenced by the verbal content of the message rather than attending to the underlying emotional message.

One of the problems with trying to assess perception of social situations is that much of the theory related to perception has been developed from the study of psychophysiological experimental laboratory-type situations, in which it has been possible to test discrete non-social aspects of perception such as signal/noise, size estimation etc. Whilst clearly of relevance to social situations, it is not really clear how these underlying principles are translated into the much more inclusive categories concerned with social behaviour. In designing the social perception tests no attempt was made to do this, although it may be possible to interpret the results in terms of the underlying problems of attention and arousal.

It would seem that to some extent, this test confirmed the results of Dougherty, Bartlett & Izard (1974) and others (See section 2.2.1.1.) which showed that schizophrenics are less able than non-schizophrenics to identify emotion in others. In four out of five cases in the current study there were significant differences between schizophrenics and non-schizophrenics in specifying the emotions displayed by the individuals concerned.
The subjects were asked to specify the verbal and non-verbal behaviours of the characters which led them to make the judgement about what they (the characters) were feeling (in order to examine the observational skills and the possible basis on which judgements about the feelings of the characters were made). It was found that the schizophrenics mentioned significantly fewer behaviours for every character. On the face of it this would seem to indicate that the schizophrenics were attending less well than the controls and therefore noticed, and could identify, fewer behaviours. However, as was shown by the behavioural tests in this study (the Goal/Behaviour Role-Play Test and the Semi-Standardized Conversation) schizophrenics offer very much shorter responses than non-schizophrenics. Therefore, the fact that schizophrenics mentioned fewer behaviours might be a function of poorer verbal functioning. In the conversation, however, (unlike in the research setting) the subjects were not 'probed' for a response. Also the schizophrenics, even when asked for a single word response to the question of emotion, did less well than the controls. Therefore this does not seem to be a strong argument to support the idea that the specification of fewer behaviours was a function of verbal impairment rather than poor observation. Another explanation might be that in asking the subjects to specify behaviours observed over time, they are required to remember what they saw over the previous four or five minutes. Therefore the inability of the schizophrenics to specify as many behaviours as the non-schizophrenics might not be a result of deficits of attention but rather a problem of recall. Unfortunately, this research sheds no further light on this problem. However, it can be assumed that if it is a problem of attention, then the chances of schizophrenics correctly inferring emotional states on the basis of observation would be greatly reduced. Therefore, whilst the evidence from this test does not disconfirm the social analogue and psychophysiological studies of attention, it is not sufficiently detailed to confirm them.

When it came to identifying the intent (or goal) of the individuals in the scenes, there were no significant differences between the schizophrenics and controls in any of the three scenes. However, in two of the three scenes the actor stated his goal quite clearly and specifically. In the office scene the boss stated that he was going to show the new girl how to use the machine and in the scene between the father and son at home, the son stated that it was the day of the football match that his father had
promised to attend and he went on to ask his father to be there. However, in the heterosocial scene where the young man stated clearly that he liked going to the cinema, but that he did not like going alone, he did not get round to asking the girl to go, even though he was showing non-verbally through glances, facial expression and tone of voice, that he liked her. In this test the schizophrenics were less able than the controls (although only slightly so) to identify appropriately the young man's goal, and fewer subjects altogether were able to identify the goal in this scene than in the other scenes. This lends weight to the findings of Newman (1977), that schizophrenics may attach importance to the verbal rather than non-verbal messages.

Although schizophrenics were almost as able as non-schizophrenics to identify the individuals' goals, they were less able to judge whether or not that goal had been achieved. This is not particularly surprising, as this is a far more complex process, involving the observation and interpretation of a number of signals emitted, possibly simultaneously, and remembering them over time. In two of the three cases there were conflicting verbal and non-verbal messages to be interpreted in making the judgement as to whether or not the goal had been achieved. In the case of the office scene, the girl said she thought she had understood the instructions her boss had been giving her, although all her non-verbal behaviour suggested otherwise; in the case of the scene between the boy and his father, the father said he would try and come to the football match in which his son was playing, whilst demonstrating his doubt through his tone of voice. In the pub scene judgement of achievement of goal had to be made on the basis of absence of verbal (rather than presence of non-verbal) behaviours. The young man just did not get round to asking the girl out to the cinema. It can therefore be seen that in two out of the three scenes the schizophrenics seemed to respond to the verbal message rather than the non-verbal, once again giving support to the findings of Newman (1977) that when presented with contradicting verbal and non-verbal messages, the schizophrenic will tend to respond to the verbal message.

The schizophrenic therefore, seems as able as the non-schizophrenic to interpret clear verbal messages but has more difficulty in interpretation of emotion in others and situations which require more complex information processing. This confirms, to some extent, the hypothesis that the schizophrenic's perception of social situations are less accurate than the non-schizophrenics.
6.2.5. SOCIAL CONTACTS (Discussion)

Hypothesis 6

There will be differences between schizophrenics and non-schizophrenics in the range and frequency of social contacts.

Evidence from the research literature would suggest that schizophrenics have a lower interaction rate than either non-schizophrenics or other patient groups (See Section 2.4.) and, although most of these studies were conducted in an institutional environment, it might be assumed that this might also be true of the (possibly) socially impaired schizophrenic living in the community.

Range and frequency of social contacts were measured by the Social Situations Questionnaire and by the Semi-Structured Interview. Interest in this area of social functioning, however, did not merely extend to interaction rates, but to actual opportunities for social interaction in the schizophrenic's daily life. (This information is crucially important if considering intervention, such as social skills training, aimed at changing the clients' social behaviour).

The results from the questionnaire indicated that greatest differences existed between the schizophrenics and controls on those items which required social interaction, and the least for those which made fewer interpersonal demands. Indeed, on the three scales constructed by factor analysis of the questionnaire, (a home scale, a social scale and a neighbourhood scale) it was on the 'home' and 'social' scales that schizophrenics differed significantly from the controls. Items on the neighbourhood scale required less close interpersonal contact than - for example, visiting friends (from the social scale).

What was surprising was not that there were significant differences between schizophrenics and controls, but that the schizophrenics engaged in so much interaction and created so many social opportunities. This was supported by evidence from the interview. The schizophrenics were going out and about in the neighbourhood, visiting pubs and cafes; they were visiting friends, inviting friends to visit them (albeit often people they had met at the local club run by the Schizophrenia Fellowship or hospital day centre) and they did go to places where they met and interacted with other people.
The hypotheses that there will be differences between schizophrenics and non-schizophrenics in the range and frequency of social contacts was therefore confirmed. The schizophrenics, on the whole, made fewer contacts, particularly of the kind which make strong interpersonal demands. However, there was no evidence that any of the schizophrenics avoided social contacts or in any sense lived an isolated existence in the community.

6.2.6. PERSONAL CHARACTERISTICS OF THE SCHIZOPHRENIC SAMPLE
Research question
Are personal characteristics of the sample associated with specific aspects of social skill?

No conclusive evidence about the respective contributions of personal characteristics could be drawn from such a small sample. However, it might be expected that: (1) pre-morbid social functioning might be associated with scores of overall social skill in the role-play tests (Goal/Behaviour Role-Play Test and Semi-Standardized Conversation) and also with social contacts (Social Situations Questionnaire); (2) verbal ability with scores on the Semi-Standardized Conversation Test and also (because highly correlated with intelligence) with the social perception test (which required the ability to carry out fairly complex cognitive operations), and (3) chronicity with long-term social goals (which it has been suggested, might be extinguished by a history of failure in social situations), and with social contacts (the Social Situations Questionnaire). There is no evidence in the literature to suggest that any of the test scores would be influenced by age or by social class. Although it might also be suggested that those closest to an acute episode may perform less well on a number of tests, attempts to assess this by reference to the number of months since the last hospitalization, were unsuccessful. Some of the subjects had clearly had acute episodes during which they were maintained at home, others had been admitted to hospital for reasons other than schizophrenia. Little confidence can therefore be placed in the data relating to time since last admission and it would not be expected to feature as significant in the regression analyses.

In spite of the small numbers in the sample, the regression analyses were to some extent as predicted. There were no significant associations
between age, social class or time since last admission and the results of the various tests, but there were strong associations between pre-morbid social functioning and the Goal/Behaviour Role-Play Test (although not the Semi-Standardized Conversation), verbal ability and the Semi-Standardized Conversation Test and the Social Perception Test, and chronicity and the Neighbourhood Scale of the Social Situations Questionnaire. Unfortunately, data concerning long-term social goals were neither readily quantifiable nor amenable to regression analysis.

It is interesting that verbal ability (intelligence) was associated with the conversation test, and pre-morbid social functioning with the Goal/Behaviour Role-Play Test. One possible explanation is that the Goal/Behaviour Role Play Test required rapid single responses to a number of fairly standard situations - situations which demanded the sort of social routines suggested by Argyle (Trower, Bryant & Argyle 1978) which require little planning and are more or less automatic. It has been suggested (Section 2.3.2.3.) that process schizophrenics (i.e. those with poor pre-morbid social functioning) might never have developed such routines and therefore would do badly on such a test.

Conversation, on the other hand, requires more planning and monitoring of self and situation; i.e. more complex cognitive involvement and it is therefore not surprising that scores on the Conversation Test were found to be associated with intelligence (as measured by verbal ability).

Therefore, whilst those results should be interpreted with caution, it can be seen that certain patterns have emerged from the regressions which seem reasonable in the light of existing theory and knowledge.

This study has therefore provided some information in answer to the question of the possible association between personal characteristics and social skill.

6.3. DISCUSSION OF RESULTS IN RELATION TO THE SOCIAL SKILLS MODEL
Each of the components of the social skill process have, for experimental reasons, been treated separately in this research, although it is appreciated that as initially conceived by Argyle & Kendon (1967) it was as a process rather than a set of discrete events. Looking at the process as
a whole, it would seem that schizophrenics may experience difficulty at every stage examined, but more at some stages than others. Because of the limits of time, not all stages of the process were explored and others only somewhat tentatively.

The data suggest that the schizophrenic brings to bear on social situations a set of very negative cognitions about his own ability to cope, cognitions which seem to be reasonably accurate, even slightly enhanced. In difficult situations, his negative view of himself or the possibility of negative consequences occurring may either lead him to modify or change his goals, or prevent him from acting as he might wish. However, his goals, except in assertive situations which he construes as difficult, or in negative assertive situations in which strangers are involved, would seem to be very similar to those of non-schizophrenics. At the perceptual stage, the schizophrenic may have more difficulty in identifying emotion, and possibly his observation skills are not as good as the non-schizophrenic. Whilst he has little difficulty in understanding what people in interactions are trying to do when made explicit (verbally), he may have more trouble with the more complex cognitive information processing task of interpreting from a number of signals, whether or not the person has succeeded.

Finally, the behavioural response, verbal and non-verbal, of the schizophrenic has been shown to be impaired, tending to be less expressive (non-verbally), to look less and to talk less than non-schizophrenics, to have difficulty in handing over conversation and in making interactive (or other) demands on his interpersonal partner.

At the feedback stage, evidence from the Social Coping Questionnaire suggests that the schizophrenic may be a reasonably accurate self-monitor, but the results of the Social Perception Test would imply he is less able than non-schizophrenics to monitor changes in the environment. In spite of these differences and difficulties, the schizophrenic's responses could in no way be considered to be chaotic or disturbed and there was considerable evidence suggesting that the schizophrenics showed similar patterns of responses to those of non-schizophrenics. For example, schizophrenics and non-schizophrenics showed a similar pattern in the amount of looking and frequency of looks, in the rank order of topics of conversational, and in the rank order of length of responses to questions, at a cognitive level, in the tendency to have an enhanced view of their social functioning.
This study demonstrated that schizophrenics differ from non-schizophrenics in most of the components of the social skill process examined. The relationship between these components were shown to be highly intercorrelated in spite of the tests being relative to different situations and it has been suggested that this may provide evidence for the notion that the tests were measuring the same concept i.e. social skill.

6.4. DISCUSSION OF RESEARCH DESIGN

6.4.1. THE METHODOLOGY

There are a number of problems in the design of this project, two of which are particularly important.

The first problem concerns the appropriateness of employing a cross-sectional design in research on a patient population suffering from a condition which may affect the area of functioning under scrutiny in different ways at different times during the course of that condition. It can be seen from the standard deviation that for a high proportion of the variables in the analysis (80%) that there was a larger (within group) variance in the schizophrenic group than in the control group. It is not clear how far this variability was the result of differential symptomatic status which might vary over time and how much it was a function of variations in the severity of the disorder which may remain relatively constant over time. In order to answer this question, it would be necessary to conduct longitudinal studies of social behaviour, in relation to stages of the schizophrenic disorder. This is time-consuming and costly and out of range of the single researcher on a limited budget with a limited amount of time. So has it been a valid exercise to conduct cross-sectional research and what measures have been taken to overcome the limitations of such a design?

The answer to the first question is a cautious 'yes'. The design has made it possible to identify certain areas of the social skill process in which schizophrenics may differ from non-schizophrenics: problems which it might be useful to follow up in future studies more systematically in relation to individual schizophrenics over time. It has also highlighted areas of possible investigation in the assessment and design of social skill training programmes for schizophrenic populations (to be discussed in Section 6.5.).
However, it was decided to employ a cross-sectional design not solely on the basis of expediency, but in order to get an overview of social skill in a schizophrenic population which was absent from the research literature, in order to highlight areas for future work, whether it be research or treatment. In an attempt to overcome some of the limitations imposed by such a design, the criteria for selection of subjects were carefully worked out and rigorously imposed in order to select symptomatically homogeneous a group as possible. Schizophrenics of a predominantly paranoid type were excluded from the sample, because the possible influence of paranoid thinking on the cognitive aspects of social skill. Subjects were selected only if they showed no acute aspects and had been stable for six months or more and the age range was limited to between 18 and 40 at the time of testing. It is interesting to note that neither time since last admission nor chronicity featured as significant in the multiple regressions on the various tests, except for chronicity on the Neighbourhood Scale of the Social Situations Test (although as pointed out above, time since last admission might not be a reliable indicator of the time since the last acute episode). Therefore, in spite of the greater variability of the schizophrenic sample, it was felt that a cross-sectional design was justified at this quite early stage in the examination of social skills and the identification of social skill deficits in a schizophrenic population.

The second major problem with this research design was that, whilst concentrating on different aspects of the social skill process, the respective tests were not related to the same situations. For example, the scenes in the social perception test were not related to the tests of cognitions or behaviour. No assumptions on the basis of this research can therefore be made about whether or not differences in behavioural response between schizophrenics and non-schizophrenics are associated with the way in which the individual cognitively construes or perceives the situation. The interview material came close to illuminating this relationship but only in a very exploratory form. Comparisons were also possible between the Conversation Scale of the Social Coping Questionnaire and the Semi-Standardized Conversation Test, as both related to conversation and to persons little known to the subjects. However, the research was concerned with assessing different aspects of the social skill process, rather than the relationship between the components of this process. Ways in which this relationship might be explored are suggested in Section 6.6.
6.4.2. THE SAMPLE

The sample, as discussed in 4.4, could not be considered as representative of a schizophrenic population from the point of view of social class, as the sample was drawn predominantly from a middle class catchment area in the Home Counties. However, as the catchment area was determined by the geographical location of the university in which the research took place, and in which the necessary (non-portable) equipment was housed, obtaining a more representative sample was neither practicable nor possible.

One possible advantage of testing a sample with a distribution skewed towards the upper end of the social scale is that it may be reasonably safe to assume that the schizophrenics' social functioning is not influenced by poor socio-economic conditions. However, even though it is necessary to take account of the fact that this sample was atypical in terms of social class, the schizophrenics came from a range of social backgrounds and social class did not feature in the regression analysis.

The sample, as well as being atypical in social class, was also probably of higher intelligence than average. As compared with social class, the implications for social functioning are perhaps greater with respect to intelligence and verbal ability featured in the regression analysis in relation to social perception and conversation. It is likely, therefore, that this sample may be functioning at the upper end of the social skill range and that, in general, schizophrenics may be more impaired than this research would suggest.

It had originally been envisaged that a second control group of non-schizophrenic out-patients should be used in this study. Difficulty in obtaining such a sample made this impracticable and so only one control group was used. Retrospectively the desirability of or necessity for such a control group is questionable. The variables it had been considered to be desirable to control for were; (1) Patient Status, (2) Chronicity, (3) Medication and (4) Hospitalisation: (1) Patient Status: the schizophrenics however were mostly maintained by injection given no more than once a fortnight either at home by the community psychiatric nurse or in a health centre. Contact with a psychiatrist was relatively infrequent. Also subjects were not taking part in the research in the role of
'patients'. If the research setting had been in hospital this would more likely to have been the case. (2) Chronicity; few neurotic disorders are likely to be as long-term as a schizophrenic illness. (3) Medication; the kind of medication prescribed for neurotic disorders is not comparable with anti-psychotic medication. (4) Hospitalization; time spent in hospital for the schizophrenics was comparatively short and was thought to be unlikely to be a major factor in influencing the social behaviour of the schizophrenic.

It would therefore seem that although it was originally considered desirable to obtain a non-schizophrenic patient control group, this was not, in the event, essential to this study.

In that the schizophrenic sample was atypical in social background, the non-schizophrenic controls who were matched in this respect were also an atypical sample. This, of course, has implications for the generalizability of the results.

6.4.3. DISCUSSION OF THE ASSESSMENT PROCEDURES
6.4.3.1. THE SEMI-STANDARDIZED CONVERSATION TEST

Whilst standardization of the conversation enabled direct comparisons to be made between the two groups, the question still remains as to how valid the results of such a test might be. This depends to some extent on how the results are interpreted. It cannot and should not be assumed that behaviour in the test situation is representative of behaviour in the subjects' real environment. It should also be taken into account that performing in a room in the university in front of a video camera with one relative stranger and another complete stranger about whom the subject has no prior information (except the imagined context of the role-play) may be a very anxiety provoking experience and is likely to be quite unlike any other situation encountered by the subjects. Results therefore should be interpreted with care and should be seen as possibly indicative of skill deficits or assets which might be present in other situations. Certainly, one could say that if certain skills are present during the interaction (such as attention feedback responses) then those skills are present in the subjects' behavioural repertoire (although it cannot be said with any certainty that they will be used).
One interesting observation of the standardization procedure (i.e. the set six questions, planned pauses etc.) was the way in which some of the controls made sense of the standardization. That is, the end product was a reasonably natural sounding conversation, whereas in some of the cases, the six questions did not appear to be integrated into the conversation and appeared somewhat artificial.

The complexity of the conversation presented some problems in the analysis. Whilst the analysis did include some of the handover devices used in conversation, it was not possible in the time available to look at the different 'patterns' of interactional sequences. However, whilst this might have been an interesting exercise, the validity of such an analysis when the conversation was so highly structured would be questionable.

It was considered by the researcher that despite the limitations which this test imposed, that it was a worthwhile exercise which provided results which, if interpreted with caution, can increase understanding of the way in which schizophrenics (and indeed non-schizophrenics) behave in conversation.

6.4.3.2. THE GOAL/BEHAVIOUR ROLE-PLAY TEST

This test was adapted from the assertiveness test developed by Eisler, Hersen, Miller & Blanchard (1975) and in addition to the various scenes being modified (an attempt to make them culturally relevant) the subject was asked to state his goal (behavioural plan) in the situations. Whilst it was felt that a knowledge of the subject's goals was fundamental to understanding and making judgements about the subsequent behaviour, it is possible that this behaviour was influenced by the subject making his plan explicit. An alternative might have been to ask the subject retrospectively, but it was felt that the statement of his goal might then have been influenced by his performance. There is no easy solution to this problem. Getting access to the subjects' goals is difficult if sequences of behaviour are more or less automatic as Argyle & Kendon (1967) suggest. Also, the goal might change during the course of the interaction as a result of perception of and feedback from the other(s) in the interaction. Indeed, in the negative assertive scene at work some of the controls who had only a partly assertive goal which included negotiation were assertive in the situation, presumably on the basis of their perception that the boss was reasonable in the role-play.
Another problem with this test was that, as it was originally conceived by Eisler et al (1975), the stooges only made one initial response. (The test has since been revised to include longer sequences). As used in this study, the stooges did, when appropriate, respond verbally to the subjects. It was however, felt that more realism would have been achieved if the role-plays had been extended.

There were also some difficulties about the nature of the actual situations, particularly the positive scenes and those involving persons known to the subjects. As discussed in section 5.3, the positive scenes almost demanded a positive response from the subjects (and in most cases got it). Perhaps if these scenes were less demanding of a positive response they would more reliably discriminate between socially skilled and unskilled.

The scenes involving persons supposedly known to the subjects presented some anomalies. For example, the scene at work involved the boss, yet most of the schizophrenics were not working at the time and most of the controls were working. On the face of it, it would seem that the schizophrenics might have to use more imagination in these scenes. Yet in the control group only a few of the subjects were in the position of being told by the boss to stay late. Some were self-employed, others had more autonomy at work and two were students. So, if this scene was unreal for schizophrenics it would seem to be equally unreal for the controls.

This raised the question of the validity of such tests. Is there any point in assessing behaviour in situations which the subjects are unlikely to encounter? Once again, it must depend on the way in which the results are interpreted. The scenes were presumably meant to be representative of classes of situations, and the test, as originally conceived had 32 scenes, only eight of which were used in this study. The BAT-R had four scenes representative of each class (e.g. male, familiar, positive) and as such might have given a more reliable picture of the areas of difficulty than can be gained by the limited version of the test used in this study. However, quite clear patterns emerged from the results, e.g. the schizophrenics had significantly less assertive goals than the controls in both negative scenes involving strangers. Therefore, although the validity of the test might have been increased by inclusion of all the scenes (which due to the pressure of time was not possible), the results do seem to be fairly clear cut.
With these reservations, this test was felt to provide useful information, particularly about the relationship between goal and response.

6.4.3.3. THE SOCIAL COPING QUESTIONNAIRE
The reliability of data collected by self-report with a schizophrenic sample may be to some extent suspect if there is any evidence of thought disorder or delusional thinking. All the schizophrenic subjects, however, had been stable over a six month period and there was no evidence of any gross symptomatology in any of the subjects at interview. Discriminant analysis of variables derived from the questionnaire did, however, fail to place two schizophrenics in the correct membership group. As discussed in section 5.4., one was not taking medication and appeared (on the basis of his performance in the other tests) to be operating in the community without impairment; the other was, indeed, one of the most severely impaired subjects in the sample, whose responses, it was thought, were delusional.

The usefulness or otherwise of this questionnaire would depend on the purpose for which it is employed. If it were being used to obtain an accurate account of the subject's social functioning, then self-report might not be the most reliable method. Schizophrenics were found to present a rather enhanced view (although only one (as mentioned above) seemed wildly inaccurate), and this possibility would have to be taken into account in interpreting the results.

The questionnaire may therefore be used to get access to cognitions, but assumptions made about the cognitions acting as an indicator of performance should be treated with caution.

6.4.3.4. THE SOCIAL PERCEPTION TEST
Whereas there are numerous studies employing role-play tests and self-report questionnaires, the assessment of social perception in the context of social skill is a comparatively recent development. Very few tests have been designed (section 3.4.4.) and none was either available or suitable for this study.

Although there are many examples of studies conducted in areas of perception relevant to the perception of social situations, most of these studies have been conducted under experimental conditions and are concerned
with more discrete aspects of perception, e.g. the perception of emotion. Yet, in the real world it is necessary to take in and interpret highly complex information over time. It was therefore necessary to construct situations for the purpose of this test.

One of the main problems in constructing situations, is that there was no external criteria of validity, e.g. the young man didn't actually fancy the young woman he was trying to ask out (although the girl in the office scene genuinely didn't understand the instructions her supposed boss was giving her and would not have been able to use the machine). If there is no such validity, who is to say what is the 'right' answer? Is it by consensus, should it be unanimous, or will there be a normal distribution? These were questions which arose during the course of constructing and carrying out the tests, but were not the subject of this study. In order to resolve this dilemma it was decided to 'play safe' in this study and use only material the meaning of which could be agreed upon unanimously by a normal pilot sample. This meant that the portrayal of feelings by the actors had to be much more obvious than had been previously envisaged, and this necessitated the re-shooting of the scenes many times. (This dilemma was also encountered by Muzekari & Bates (1977) and resolved in a similar way).

Whilst it was felt that this test provided some useful information about the perception by schizophrenics of complex social situations, its main weakness was the fact that there was no relationship between the scenes chosen for this test and the situations involved in the other tests. It was therefore not considered appropriate to compare results on this test with results on others (particularly if, as has been tentatively suggested, social perception as well as social behaviour, might be situation specific). This test therefore can only be regarded as a first stage to developing more comprehensive and integrated tests of social perception. This will be discussed further in section 6.6. on Future Directions.

6.4.3.5. SOCIAL SITUATIONS QUESTIONNAIRE

Existing questionnaires were not employed on this study as the baseline of such questionnaires was considered too high for a very socially impaired population. One of the difficulties however of designing a questionnaire with a particular population in mind, is that items may not be applicable to other groups, e.g. the item on talking to those who visited others in
the house was aimed at the single male schizophrenic's interaction (or lack of interaction) with his sisters', brothers' or parents' friends. Many of the controls stated that the question did not apply to them as most of the people who visited the house were friends which they had in common with their wives. This highlights the extent to which differences between the two groups were attributable to the atypical lifestyle of schizophrenics. Although this sounds tautologous, there are some activities which would be engaged in more frequently as a result of being married or working.

Once again, the validity of the questionnaire depends on how it is used. In examining the differences between schizophrenics and non-schizophrenics, it might have been more useful to administer the questionnaire to a group of non-schizophrenics living at home with their parents than a married group. However, it was most useful in this study in providing information about the range and frequency of schizophrenics' social contacts and interaction which was found to be somewhat greater than might have been predicted from the literature.

6.4.3.6. THE SEMI-STRUCTURED INTERVIEWS
There were three purposes of these interviews; (1) to gain rapport with the schizophrenics and their relatives; (2) to administer the Social Coping and Social Situations Questionnaires and (3) to collect data on difficult situations and more general situations. The interview presented some problems to the researcher in keeping it focussed and it was felt that some data was sacrificed for the sake of the relationship between researcher and subjects and relatives (necessary for the subsequent stage of the research). It might possibly have been better to have made contact with the subjects and their relatives in a less structured encounter initially, and to have carried out the more focussed work at a second interview.

The interview however, did prove to be a rich source of data unobtainable by more standardized research procedures.

6.5. IMPLICATIONS OF THE RESULTS FOR SOCIAL SKILLS TRAINING
The most encouraging finding to come out of this research is that, except in specific types of negative assertive situations, the schizophrenics in this sample have very similar goals to non-schizophrenics. The Goal/Behaviour Role-Play Test has demonstrated this experimentally for short-term goals and for long-term goals it can be deduced from the
interview data. This is of fundamental importance in considering social skills training. There would be little point in considering training, if the schizophrenic's main aim was withdrawal from social situations, although it could be argued that (a) training should include restructuring of goals, or (b) alternatively training would result in the subject reformulating his own goals.

This leads to a consideration of the continuing debate in the social skills literature. Do cognitions change as a result of training, or is it necessary to include cognitive restructuring as a part of training? (E.g. Spence 1982). The self-cognitions of the schizophrenics were very negative (and appropriately so). Would these negative cognitions change as a consequence of behavioural change (brought about by social skills training) or would it be necessary to work concurrently in training on the cognitions associated with social performance? This research of course does not answer this question, but it does highlight the need for the assessment of cognitions in schizophrenic people considered for social skills training, and in the evaluation of such training.

The area of social perception is particularly important for the schizophrenic and would include observation of the relevant stimuli and their accurate interpretation. The results of this study if generalizable suggest that schizophrenics possibly observe less (they could name fewer behaviours of the actors than controls in the Social Perception Tests) and are less able to process complex verbal and non-verbal information (demonstrated by their difficulty in specifying whether or not the goal had been achieved.

Training should therefore include work on increasing the observational skills of the schizophrenic and on teaching him to focus on relevant stimuli in the interaction. This might be done most effectively by the use of video tapes. To facilitate interpretation it might be necessary to increase the patient's social knowledge of the meaning of various response cues. He might also need to be taught how to interpret messages where the non-verbal message conflicts with the verbal (as in the father's response in the Social Perception Test 'At Home' scene 'I'll try to get along (to his son's football match) if I can', when it was fairly clear from his tone of voice that this was unlikely. This would involve focussing on the non-verbal as well as the verbal.
When it comes to interpreting the feelings of others in social interaction, the schizophrenic might need to be taught to make judgements on the basis of his observations (external monitoring) rather than on how he thinks he would feel in the situation (internal monitoring). The way in which the latter operated was demonstrated in section 5.5.

This study did not attempt to look at the ability of schizophrenics to explore alternative courses of action to weigh up possible consequences, i.e. the cognitive processes which take place at the translation stage of the social skill process. However, the result of the study made by Platt & Spivak (1972) would suggest that schizophrenics show deficiencies in this process which would suggest the necessity for training in this aspect of social skill.

There were very large differences between schizophrenics and non-schizophrenics on measures of verbal behaviour. These would suggest that training programmes need to concentrate on (1) increasing the length of responses, both in assertive situations and in response to questions in conversation (schizophrenics were far less variable than controls in their responses to questions); (2) encouraging the schizophrenic to elaborate, not to give the minimum response, and to couch his response in less personal terms.

*e.g.* Q. Do you like it here at the club?
A. Yes, I do, I enjoy playing table tennis after I've been working in the garden (too personal).

A. Yes, its nice here. Its good to play table tennis after working all day (less personal).

The ability to de-personalize conversation would seem to be important in relation to looking behaviour. Rutter, as discussed in section 2.3.3. suggested that schizophrenics have difficulty with eye contact only when the content is personal, yet Grant (1970) found (and the results from this study would confirm it) that schizophrenics tended to personalize the content of conversations. It might be supposed then that in teaching the schizophrenic to generalize rather than personalize the content of his conversation, his looking behaviour might improve.
The schizophrenic could be taught not only to lengthen his responses but to hand over the conversation appropriately. The most common method of handover in the role-played conversation was by question, usually similar to the one asked him but phrased differently, e.g.

Q. Do you live around here?
A. Yes, not far away in Shalford, just outside the village. How about you? Are you local?

Or the subject might develop the topic and ask a question relating not directly to the question he had been asked, but to the new topic, e.g.

Q. What about hobbies or interests.....?
A. Well, I play a lot of squash. It's a good way of keeping fit, particularly if you're sitting down all day. There are some squash courts round here aren't there?

Here, the question relates not directly to hobbies and interests but to facilities in the neighbourhood, allowing for the possibility of a change of emphasis in the conversation. Training of schizophrenics might include how to use questions in this way to carry the conversation further and to manipulate the topic.

In negative assertive situations the schizophrenic needs to be taught to take the situation further, not by asking questions,' but by giving directions to the other person to change his behaviour, e.g. to the woman who has butted in the queue to go to the end of the queue. Perhaps more importantly, the schizophrenic should be taught to weigh up consequences of such actions and select the response most appropriate to his goals and the situation. However, if he does not have the more assertive behaviour in his repertoire, he will not have the option of using it should he judge assertion to be appropriate.

Pauses and hesitations may cause more problems for training. It has been suggested that certain pauses in speech are necessary for important cognitive operations to take place (section 2.3.1.) and furthermore that
such pauses might result from a breakdown in the more automatic social routines discussed by Argyle & Kendon (1967), necessitating the need for an increased amount of planning time for the schizophrenic. If this is the case, then helping the schizophrenic to develop social routines to deal with frequently occurring situations might reduce the time spent in hesitations. If this is not the case, then social skills training would be unlikely to influence this behaviour. However, the schizophrenic might be taught some coping skills to deal with such situations, e.g. to convey by his facial expression and gestures that he is thinking what to say next, rather than staring blankly in front of him.

For non-verbal behaviour, although the qualitative ratings were significantly lower on every aspect rated, i.e. tone of voice, facial expression, looking and posture, it is only the quantitative measures that give specific information useful for training. For example, a low rating on tone of voice could mean a number of things such as little variation in pitch, slow speech, lack of emphasis, lack of variation in voice volume or possibly a combination of these and other factors. For training purposes, it is necessary to specify precisely the behaviour or component of behaviour in question.

The quantitative ratings on the other hand showed that the schizophrenics and non-schizophrenics smiled a similar amount (although a qualitative judgement might be needed in order to determine whether the smiling was appropriate).

The main differences in non-verbal behaviour between schizophrenics and non-schizophrenics was in looking behaviour and gestures. It was also noted that the schizophrenics appeared to spend less time making minute postural shifts during the course of the conversation.

Possible explanations for a reduced amount of looking have been offered in section 6.2.1. It was suggested that this might be accounted for by the fact that the schizophrenics spent a shorter proportion of the time talking and asked fewer questions of the stooges, thereby lessening their opportunities for listening. As looking is closely associated with listening, and to a slightly lesser extent with talking, it is hardly surprising that schizophrenics spent less time looking and made fewer
glances towards the stooges. As suggested above, it may be that by increasing the schizophrenic's verbal and listening behaviour (by elaborating and asking questions which would give him the opportunity to listen), looking behaviour might increase as a consequence.

Paucity of gesturing was very noticeable in the schizophrenic sample and was found to be highly correlated with social skill. Attention may therefore need to be paid to the training of expressive gestures when designing and running social skills training with schizophrenic patients. Lack of gestures however, may well be related to the underlying neurological pathology, the effects of medication, or a combination of the two. At this stage, there is insufficient information available to draw any conclusions about how successful training might be with respect to such impairment of motor functioning.

A similar problem exists with training in minute postural shifts. Again, training programmes need to be devised in this particular area of non-verbal behaviour. Such programmes need to be evaluated before it will be known whether this is something over which the schizophrenic has control, and can change. Wilkinson & Canter (1982) (Appendix 6.2.) have stressed the need for careful assessment of patients for existing programmes and the necessity for designing programmes to meet the needs of particular individuals. This is of even greater importance when considering training for anyone suffering from schizophrenia. As can be seen from the larger standard deviations on many of the variables measured, the schizophrenic group studied appeared to be far more variable than the normal control group, and this variability must always be taken into account when interpreting the results. These results can do no more than highlight certain areas of social skill in which the schizophrenic might be deficient. They do not eliminate the need for systematic assessment and individually designed programmes.

Another reason for caution is that we do not yet know enough about whether or not certain aspects of the schizophrenic disorder are amenable to change. Before making definitive suggestions about what should or should not be included in social skills training programmes for schizophrenic individuals, a great deal more evaluation needs to be carried out on training programmes with this population.
The results of this study would however suggest that Social Skills Training Programmes for remitted schizophrenics should include work on:

1. Improving the schizophrenic's observational skills in relation to the interpersonal partner;

2. Developing Social Knowledge to enable accurate interpretation of the interpersonal partner(s) behaviour based on observation rather than subjective factors;

3. Increasing verbal responses to questions to include elaboration;

4. Generalizing rather than personalizing responses in conversation;

5. Using questions, particularly follow-up questions as a means of handing over the conversation;

6. Using follow-up statements as a means of continuing the conversation;

7. Reducing hesitations possibly by the use of coping strategies suggested above;

8. Increasing looking (although not increasing the length of glances);

9. Using communicative hand gestures;

10. Showing interest in the interpersonal partner during conversation;

11. Improving vocal tone, facial expression and posture.
Finally, in interpreting these results, it must be borne in mind that the data were collected from non-naturally occurring interactions; although this has been useful in highlighting areas of difference and in quantifying that difference. Because of the direct relationship between assessment and training in social skills training (as in all behavioural or cognitive/behavioural approaches to treatment), it has also given very clear and specific prescriptions for training. However, by standardizing the situations in which the subjects were observed in interaction, and by analyzing their behaviour in terms of components, a lot of information is lost. Whilst for the purpose of this study, this approach can, and indeed has, been justified, it does emphasise the need for studies of schizophrenics in vivo, in which the process of the interaction, rather than or as well as, discrete behaviours can be studied.

6.6. **FUTURE DIRECTIONS**

Three clear directions for future work in social skills emerge from this study.

1. The inclusion of the results of this study into social skills training programmes for schizophrenics and the evaluation of such programmes.

2. The development of procedures for the more systematic assessment of social skill based on the expanded social skills model proposed in section 1.6, and designed so that the relationship between variables associated with different components of the social skill process, may be analyzed.

3. The further study of the social behaviour of schizophrenics in vivo using more descriptive methods with the aim of increasing understanding of the social interaction of schizophrenics.

**Evaluation of social skills training programmes with schizophrenics**

In the preceding section, suggestions about social skills training were made on the basis of the findings of this study. A further stage is the design of social skills training programmes (incorporating these suggestions and also material gained from the assessment of the particular individuals included in the study), and the evaluation of such training.
The specific questions relating to training schizophrenics which emerged from this study were:

(1) Are the behaviours which result either from biochemical processes associated with the schizophrenic disorder itself or from the effects of medication (which might affect social behaviour) amenable to change by social skills training?

(2) Will increasing the verbal behaviour result in a corresponding increase in looking behaviour?

(3) Will behavioural change be accompanied by a change in self-cognitions, or will it be necessary to build cognitive training into the training programme.

Hopefully, future research will provide information on this very important area of developing and evaluating therapeutic strategies for helping those suffering from schizophrenia.

The further development of assessment procedures

One of the problems with this research was that although it attempted to investigate the functioning of the subjects at different stages of the social skill cycle, it was not possible to examine the whole social skill process comprehensively. If, as has been suggested, social skills are situation specific, it would be necessary to have access to all the stages in relation to a particular situation or situations.

It is therefore suggested that specific situations with which subjects experience difficulty or will need to be able to cope with (e.g. if going to live in the community after a long period of institutionalization, or in returning to work) should be identified. Procedures should then be designed to assess all aspects of the social skill cycle suggested by the expanded social skills model (section 1.6.) in relation to those situations. This would include the assessment of:

(1) Cognitions relating to the situations;
(2) The subject's goals in the situation;
(3) His perception of the situation (via video taped scenes);
(4) His ability to generate alternative strategies;
His evaluation of appropriateness and consequences of these and other strategies;

His choice of strategy, and finally

His behavioural response to that situation.

By the use of multivariate statistics, it would be possible to explore the relationships between the various aspects of social skill and at what stage or stages the breakdown in the cycle occurs. Work on the design of such procedures is in fact, in progress (Canter & Wilkinson) and is presented in Appendix 6.3.).

Descriptive analysis in vivo
It has been argued the methods employed in this study were appropriate to its aims, but it seems clear that understanding of the social behaviour of schizophrenics would be greatly enhanced by studies in vivo.

6.7. CONCLUDING COMMENTS
This research has attempted to bring together at a theoretical level a large body of literature on social behaviour with perhaps an even greater literature on schizophrenia. By doing so, it has suggested very specific ways in which the schizophrenic might be impaired as a result of his illness and by social factors operating in the environment. These hypothesised areas of impairment have subsequently been examined empirically and in this section the results discussed in relation to the hypotheses developed from the theoretical and empirical literature on the two areas. The work has provided new knowledge and insights into the social behaviour of schizophrenics from the perspective of social skill. In this chapter suggestions have also been made about how the results might be interpreted in relation to social skills training and for possible future directions for research.

The expanded social skills model has proved sufficiently robust for such a project. It has been argued in this study that the concepts of cognitive schema and social knowledge can be incorporated into the original model of Argyle & Kendon (1967) (although testing of the concepts must remain for future research). One of the advantages of such a model is the strength of the relationship between assessment (of the components of the model) and
training, i.e. the subject/patient is assessed on the very same aspects as those on which he is trained. The model also enables the exploration of cognitive functioning related to social behaviour. The limitation of this approach however is that the behavioural aspects of social skill assessment appears somewhat over-simplified when compared with the richness and subtlety of human behaviour. Other disciplines have attempted to catch in detail the complexity of social interaction in a variety of contexts, such as conversation (Coulthard 1984) and political oratory (Atkinson 1984). The understanding of schizophrenic behaviour might be enhanced by such detailed descriptive studies, (although translating that information into training programmes could prove difficult). It would seem therefore that whilst the strength of the social skills approach lies in its value for training, the simplification that this necessarily entails might ultimately be its main limitation.
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APPENDIX 4.1

GOAL/BEHAVIOUR ROLE PLAY TEST

SITUATION 1 (male positive familiar)
You have been working on a difficult job all week. Your boss comes over with a smile on his face and says, 'I’m going to give you a rise next week.'

What would you want to do in the situation?

SITUATION 2 (male positive unfamiliar)
You are the captain of your local darts team. One of your team is ill and another member has bought a friend called Bill (who you have never met before) to replace him. Your team is slightly behind when Bill scores three doubles to win the match. You are really pleased. He turns to you and says, 'Well, how about that then?'

What would you want to do in the situation?

SITUATION 3 (male positive familiar)
You have had a busy day at work and you are tired. Your boss comes in and asks you to stay late for the third time this week on a job you know is not all that urgent. You really would like to get home on time tonight. Your boss says, 'I'm leaving now: would you mind staying and finishing the job?'

What would you want to do in the situation?

SITUATION 4 (male negative unfamiliar)
You go to a football match with reserved seat tickets. When you arrive you find that someone has put his coat on your seat. You ask him to remove his coat and he says, 'I'm sorry, this seat's reserved for a friend.'

What would you want to do in the situation?
SITUATION 5  (female positive familiar)
Your wife/girlfriend has just bought a new outfit and is trying it on. You really like it and think she looks really nice. She says, 'Well, how do I look?'

What would you want to do in the situation?

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SITUATION 6  (female positive unfamiliar)
You are in a restaurant and the waitress has just served you a excellent meal cooked just the way you like it. She stops at your table and says, 'I hope you enjoyed your dinner sir?'

What would you want to do in the situation?

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SITUATION 7  (female negative familiar)
You are in the middle of watching an exciting football match on television. Your wife/girlfriend walks in and changes the programme as she does, or so it seems to you, every time you are watching a good game. She says, 'Let's watch the film instead. It's supposed to be really good.'

What would you want to do in the situation?

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SITUATION 8  (female negative unfamiliar)
You are in a crowded supermarket and you are in a hurry because you are going to be late for an appointment. You pick up three or four items and get in the queue to pay for them. Then a woman with her trolley half full butts in in front of you saying, 'You don't mind if I butt in here do you? I've not got a lot and I'm in a dreadful hurry.'

What would you want to do in the situation?

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SOCIAL COPING QUESTIONNAIRE I

HERE ARE SOME THINGS WHICH PEOPLE GENERALLY DO IN THE COURSE OF THEIR EVERYDAY LIVES.

CAN YOU TELL ME HOW YOU FEEL YOU COPE WITH, OR MANAGE WITH THE FOLLOWING, WHEN YOU FEEL MOST ABLE AND CONFIDENT.

I WOULD LIKE YOU TO GIVE ONE OF THE FOLLOWING REPLIES TO THE QUESTIONS I AM GOING TO ASK YOU

I AVOID IT IF I CAN
NOT AT ALL WELL
NOT VERY WELL
FAIRLY WELL
VERY WELL

HOW DO YOU FEEL YOU COPE WITH:

1. Walking down the street
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

2. Looking at people when you are talking to them or them to you, in situations where you know the person or people, but not very well
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

3. People looking at you during conversation, in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

4. Opening a conversation in situations etc
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

5. Joining in a conversation in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

6. Keeping a conversation going in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

7. Talking to people when you are interested or know something about the subject of the conversation in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

8. Talking to people when you are not interested or do not know anything about the subject of conversation etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

9. Talking about yourself, your opinions and feelings in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

10. Putting your own point of view forward in situations etc.
     AVOID NOT AT ALL NOT VERY FAIRLY VERY

11. Listening to others in situations etc.
     AVOID NOT AT ALL NOT VERY FAIRLY VERY
12. Making new friends  
   AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

13. Gerring to know people well  
   AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

14. Maintaining old friendships  
   AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

15. Getting on socially with men  
   AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

16. Getting on socially with women  
   AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY
APPENDIX 4.3

SOCIAL COPING QUESTIONNAIRE (RELATIVES' VERSION)  SERIAL NO_________

HERE ARE SOME THINGS WHICH PEOPLE GENERALLY DO IN THE COURSE OF THEIR EVERYDAY LIVES.

CAN YOU TELL ME HOW YOU FEEL....................... COPIES WITH OR MANAGES WITH THE FOLLOWING, WHEN HE APPEARS MOST ABLE AND CONFIDENT.

I WOULD LIKE YOU TO GIVE ONE OF THE FOLLOWING REPLIES TO THE QUESTIONS I AM GOING TO ASK YOU

I AVOID IT IF I CAN
NOT AT ALL WELL
NOT VERY WELL
FAIRLY WELL
VERY WELL

HOW DO YOU FEEL HE COPIES WITH:

1. Walking down the street
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

2. Looking at people when he is talking to them or them to him in situations where he knows the person or people, but not very well
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

3. People looking at him during conversation, in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

4. Opening a conversation in situations etc
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

5. Joining in a conversation in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

6. Keeping a conversation going in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

7. Talking to people when he is interested or knows something about the subject of the conversation in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

8. Talking to people when he is not interested or does not know anything about the subject of conversation etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

9. Talking about himself, his opinions and feelings in situations etc.
   AVOID NOT AT ALL NOT VERY FAIRLY VERY

10. Putting his own point of view forward in situations etc.
    AVOID NOT AT ALL NOT VERY FAIRLY VERY

11. Listening to others in situations etc.
    AVOID NOT AT ALL NOT VERY FAIRLY VERY
SOCIAL COPING QUESTIONNAIRE (RELATIVES' VERSION)

12. Making new friends
    AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

13. Getting to know people well
    AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

14. Maintaining old friendships
    AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

15. Getting on socially with men
    AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY

16. Getting on socially with women
    AVOID  NOT AT ALL  NOT VERY  FAIRLY  VERY
SOCIAL PERCEPTION TEST

I AM GOING TO SHOW YOU SOME SHORT SCENES ON THE TELEVISION SCREEN, AND AFTER EACH ONE, I WILL ASK YOU SOME QUESTIONS.

IT IS NOT A MEMORY TEST, SO YOU DON'T HAVE TO TRY TO REMEMBER EVERYTHING.

SCENE 1 IN THE PUB

This scene takes place in a pub. The young man and woman involved work in the same organisation, but don't meet often at work. They have been playing squash together once a week for the past three weeks, and usually go to the pub afterwards for a drink. Apart from this they have not met outside work. Tonight she is in a hurry as she has promised to babysit for her sister.

1.1. What do you think the young man was feeling?

1.2. What was it he said or did that made you think that?

1.3. What was he mainly trying to do?

1.4. Did he succeed in asking her out?

1.5. What do you think she felt about him?

1.6. What was it she said or did that made you think that?
SCENE 2  IN THE OFFICE

his scene takes place in the office. It is the new office girl's first day at work, and the boss is showing her some of the equipment she will be expected to use.

2.1. What do you think the girl was feeling during the scene?

2.2. What was it she said or did that made you think that?

2.3. What was the main thing the man was trying to do?

2.4. At the end, do you think the girl could use the machine?

2.5. What do you think the man was feeling during the scene?

2.5. What was it he said or did that made you think that?
SCENE 3  AT HOME

This scene is between a father and son. It takes place at breakfast time.

3.1. How do you think the boy felt at the end when he left?

3.2. What was it he said or did that made you think that?

3.3. What was the main thing the boy was trying to do in the conversation?

3.4. When the boy left at the end, do you think he had succeeded in getting his father to go to the match?

3.5. What topic of conversation was most important to the son?

3.6. What topic of conversation was most important to the father?
NOW SOME QUESTIONS ABOUT HOW YOU SPEND YOUR TIME.
COULD YOU TELL ME HOW OFTEN DO YOU (AND WHEN DID YOU LAST):

1. Answer the telephone _______________________________________
   (about how often does it ring) ________________________________

2. Make telephone calls (home, office, public box) ____________

3. Answer the door at home ________________________________
   (how often do people call) ________________________________

4. Buy things in shops yourself ________________________________

5. Go to the bank or post office yourself ______________________

6. Go into pubs, cafes or restaurants __________________________

7. Go to places other than pubs etc. where you meet and talk with others (eg social or sports clubs, the church) __________

8. Visit friends' houses ________________________________

9. Have your friends visiting your house ______________________

10. Talk to those who visit others in the house
    (about how often do people visit others in the house) __________

11. Greet (hello, hi, nod to) neighbours ________________________
    (about how often do you see them) _________________________

12. Talk to neighbours ________________________________

13. Go out of the house alone ________________________________

14. Go out with members of your family ________________________

15. Go out with people other than immediate family ________________

16. Suggest to others that you go out __________________________

17. Spend your evenings or spare time with family

18. Spend your evenings or spare time with others ________________

19. Spend your evenings or spare time talking with others

20. Spend your evenings or spare time alone ______________________

21. Greet workmates/colleagues when you arrive at work, or first see them ________________________________

22. Talk with your workmates/colleagues during breaks
    (how often do you get the opportunity) ________________________

23. Say 'Goodbye' or make some remark or gesture on leaving work ________________________________
APPENDIX 4.6

SEMI STRUCTURED INTERVIEW

FACE SHEET DATA

SERIAL NUMBER

AGE

EMPLOYMENT RECORD

CURRENT EMPLOYMENT STATUS

FATHER'S CURRENT OR LAST OCCUPATION

EDUCATIONAL ATTAINMENT

AGE AT FIRST PSYCHIATRIC REFERRAL

RECORD OF IN-PATIENT ADMISSIONS

CURRENT MEDICATION

MARRITAL STATUS

SIGNIFICANT RELATIVE
SEMI STRUCTURED INTERVIEW (cont.)
(Schizophrenic subjects only)

HOW DO YOU GENERALLY SPEND YOUR DAYS AND EVENINGS?

WHO DO YOU GENERALLY SEE DURING THE COURSE OF YOUR DAY?

ARE THERE ANY SITUATIONS WITH PEOPLE WHICH YOU FIND DIFFICULT OR AVOID?
(One page per situation)

SITUATION

WHO IS INVOLVED?

WHAT ACTUALLY HAPPENS

HOW OFTEN DOES THIS OCCUR?

WHAT WOULD YOU LIKE TO BE ABLE TO DO IN THE SITUATION?

WHAT IS STOPPING YOU FROM DOING THIS?
HERE IS A LIST OF SITUATIONS WHICH OTHER PEOPLE OFTEN FIND DIFFICULT:

MAKING APPOLOGIES (SAYING SORRY)
BEING CRITICISED AND DEALING WITH IT
ASKING SOMEONE FOR SOMETHING THEY WANT
SAYING 'NO' WHEN THEY DON'T WANT TO DO SOMETHING
MAKING A COMPLAINT IN A SHOP OR RESTAURANT OR CAFE
ASKING SOMEONE OUT
TALKING TO PEOPLE THEY DON'T KNOW VERY WELL
INTRODUCING ONE PERSON TO ANOTHER
SAYING 'THANK YOU'
PAYING A COMPLIMENT

WHICH OF THESE SITUATIONS (IF ANY) DO YOU FIND DIFFICULT OR AVOID?
SITUATION

WHO IS INVOLVED?

WHAT ACTUALLY HAPPENS

HOW OFTEN DOES THIS OCCUR?

WHAT WOULD YOU LIKE TO BE ABLE TO DO IN THE SITUATION?

WHAT IS STOPPING YOU FROM DOING THIS?
ARE YOU SATISFIED WITH YOUR PRESENT SOCIAL LIFE AND ABILITY TO GET ON WITH PEOPLE

________________________________________________________________________________________

________________________________________________________________________________________

IF NOT, WHAT WOULD YOU LIKE TO BE DOING?

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

WHAT DO YOU THINK IS STOPPING YOU?

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________
APPENDIX 4.7

INTERVIEW WITH SIGNIFICANT RELATIVE

SERIAL NUMBER

STATUS

HOW DOES ___________ GENERALLY SPEND HIS DAYS AND EVENINGS?

WHO DOES HE GENERALLY SEE DURING THE COURSE OF HIS DAY?

ARE THERE ANY SITUATIONS WITH PEOPLE THAT YOU HAVE NOTICED THAT HE HAS DIFFICULTY WITH OR AVOIDS?
SITUATION

WHO IS INVOLVED?

WHAT ACTUALLY HAPPENS

HOW OFTEN DOES THIS OCCUR?

WHAT WOULD YOU LIKE HIM TO DO IN THE SITUATION?

WHAT DO YOU THINK IS STOPPING HIM?
HERE IS A LIST OF SITUATIONS WHICH OTHER PEOPLE OFTEN FIND DIFFICULT:

MAKING APPOLGIES (SAYING SORRY)
BEING CRITICISED AND DEALING WITH IT
ASKING SOMEONE FOR SOMETHING THEY WANT
SAYING 'NO' WHEN THEY DON'T WANT TO DO SOMETHING
MAKING A COMPLAINT IN A SHOP OR RESTAURANT OR CAFE
ASKING SOMEONE OUT
TALKING TO PEOPLE THEY DON'T KNOW VERY WELL
INTRODUCING ONE PERSON TO ANOTHER
SAYING 'THANK YOU'
PAYING A COMPLIMENT

WHICH OF THESE SITUATIONS (IF ANY) DOES __________ FIND DIFFICULT
OK AVOID. ?
SITUATION

WHO IS INVOLVED?

WHAT ACTUALLY HAPPENS

HOW OFTEN DOES THIS OCCUR?

WHAT WOULD YOU LIKE HIM TO DO IN THE SITUATION?

WHAT DO YOU THINK IS STOPPING HIM?
Are you satisfied with his present social life and ability to get on with people?

If not, what would you like him to be doing?

What do you think is stopping him?
Dear

I am working on a project looking at the kinds of difficulties (if any) experienced at present by people who have had psychiatric problems in the past.

Dr. , Consultant psychiatrist at Hospital, suggested that I contact you, and I would very much like to come and talk to you.

I could come to your home, or if you prefer it, I could see you at the hospital or the university.

Maybe I could telephone you next week, with a view to making an appointment.

Yours sincerely

Jill Wilkinson
Dear

I am working on a project looking at the kinds of difficulties (if any) experienced at present by people who have had psychiatric problems in the past.

Dr. , Consultant psychiatrist at Hospital, suggested that I contact you, and I would very much like to come and talk to you.

I could come to your home, or if you prefer it, I could see you at the hospital or the university.

I would be most grateful if you would fill in the enclosed form and return it to me in the stamped addressed envelope provided.

I look forward to hearing from you.

Yours sincerely

Jill Wilkinson
I am carrying out research into some of the effects of serious mental illness.

In order to do this I need information not only from those who have suffered a severe breakdown, but from those who have never been mentally ill (a "normal" control group)

For this group I need

men (24 in all) aged 18 - 40 yrs

It will involve coming to the university of Surrey for about an hour and a quarter at whatever time is convenient, watching some videotapes and doing one or two other things. Most people find it interesting and enjoyable.

This project will provide valuable information for the treatment and management of long term mental illness.

If you or anyone you know will offer their services please ring me, Jill Wilkinson, on Guildford 898246 (evenings and early morning) or Guildford 571281 (x 786)
## APPENDIX 5.1

**CORRELATION MATRICES FOR TWO FACTORS OF THE SOCIAL COPING QUESTIONNAIRE**

### SCALE 1

<table>
<thead>
<tr>
<th>1. Looking at people during conversation</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<td>1. Looking at people during conversation</td>
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<td>2. People looking at you during conversation</td>
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<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Talking about yourself, opinions, feelings</td>
<td>.49</td>
<td>.46</td>
<td>1</td>
<td></td>
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<td></td>
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<tr>
<td>4. Putting your own point of view forward</td>
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<td>.35</td>
<td>.66</td>
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<td></td>
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<tr>
<td>5. Getting on socially with women</td>
<td>.48</td>
<td>.54</td>
<td>.38</td>
<td>.44</td>
<td>1</td>
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<td>6. Walking down the street</td>
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<td>.29</td>
<td>.34</td>
<td>.41</td>
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<td>.49</td>
<td>.49</td>
<td>.43</td>
<td>.48</td>
<td>.43</td>
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\[ r = .49 \]

McKennell's = .85

### SCALE 2

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<th>1 Keeping a conversation going</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
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<tbody>
<tr>
<td>1 Keeping a conversation going</td>
<td>1</td>
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<tr>
<td>2. Talking to people when you are not interested in subject</td>
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<td>3. Joining in a conversation</td>
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<td>4. Getting on socially with men</td>
<td>.58</td>
<td>.54</td>
<td>.48</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. Talking to people when you are interested in subject</td>
<td>.34</td>
<td>.53</td>
<td>.36</td>
<td>.40</td>
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<td>6. Opening a conversation</td>
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<td>.56</td>
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\[ r = .48 \]

McKennell's = .85
APPENDIX 5.2

RECODES ON SOCIAL COPING QUESTIONNAIRE

Social Exposure Scale
0 - 20 = 1
21 - 25 = 2
26 - 28 = 3
29 - 31 = 4
32 - 33 = 5
34 - 35 = 6

Conversation Scale
0 - .18 = 1
19 - 21 = 2
22 - 24 = 3
25 - 26 = 4
27 - 28 = 5
29 - 30 = 6
### APPENDIX 5.3

**CORRELATION MATRICES FOR THREE FACTORS OF THE SOCIAL PERCEPTION TEST**

#### SCALE 1

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<th>5</th>
<th>6</th>
<th>7</th>
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<td>1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Office - girl's behaviour</td>
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<tr>
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<td>Office - man's feelings</td>
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<td>1</td>
<td></td>
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<tr>
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<tr>
<td>4</td>
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<td>.40</td>
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<td>.44</td>
<td>.33</td>
<td>.32</td>
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<td></td>
<td>.00</td>
</tr>
<tr>
<td>6</td>
<td>Home - boy's behaviour</td>
<td>.53</td>
<td>.49</td>
<td>.28</td>
<td>.31</td>
<td>.73</td>
<td>1</td>
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<td>7</td>
<td>Home - boy successful?</td>
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<td>.59</td>
<td>.58</td>
<td>.36</td>
<td>.63</td>
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</table>

\[ r = .49 \]

McKennell's = 0.87

#### SCALE 2

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<td></td>
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<tr>
<td>2</td>
<td>Pub - man's behaviour</td>
<td>.56</td>
<td>1</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>.75</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Office - man successful?</td>
<td>.43</td>
<td>.66</td>
<td>.47</td>
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</table>

\[ r = .55 \]

McKennell's = 0.79

#### SCALE 3

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<th>2</th>
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<td>Pub - girl's feelings</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Pub - girls's behaviour</td>
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\[ r = .80 \]

McKennell's = 0.89
APPENDIX 5.4

RECODES FOR SOCIAL PERCEPTION TEST

Male Dominant Situations

< 15 = 1
15 - 17 = 2
18 - 19 = 3
20 - 21 = 4

Ambiguous Heterosocial Situations (male)

< 8 = 1
8 = 2
9 = 3

Ambiguous Heterosocial Situations (female)

< 5 = 1
5 = 2
6 = 3

The grouping of these scales may appear somewhat arbitrary as scale 1 has four points whereas scales two and three have three points each. This resulted from rather different patterns of distributions of the raw scores which in the case of scales two and three were so concentrated at the top end of the range that division into more than three points was inappropriate. Scale one however regrouped quite naturally into four points.
### APPENDIX 5.5

**SOCIAL SITUATIONS QUESTIONNAIRE RECODES**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Recode Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering the 'phone</td>
<td>&gt;4 times week=3, once weekly to 4 times weekly=2, less=1</td>
</tr>
<tr>
<td>Making 'phone calls</td>
<td></td>
</tr>
<tr>
<td>Answering the door</td>
<td></td>
</tr>
<tr>
<td>Buying things in shops</td>
<td></td>
</tr>
<tr>
<td>Going to the pub etc.</td>
<td></td>
</tr>
<tr>
<td>Places other than pub</td>
<td>twice weekly or more=3, twice monthly to weekly=2, less=1</td>
</tr>
<tr>
<td>Visiting friends</td>
<td></td>
</tr>
<tr>
<td>Friends visiting</td>
<td></td>
</tr>
<tr>
<td>Talking to visitors</td>
<td></td>
</tr>
<tr>
<td>Greeting neighbours</td>
<td></td>
</tr>
<tr>
<td>Talking to neighbours</td>
<td></td>
</tr>
<tr>
<td>Evenings with family</td>
<td></td>
</tr>
<tr>
<td>Evenings with others</td>
<td></td>
</tr>
<tr>
<td>Evenings talking others</td>
<td></td>
</tr>
<tr>
<td>Evenings alone</td>
<td></td>
</tr>
<tr>
<td>Going out alone</td>
<td>&gt;4 times week=3, twice weekly to 4 times weekly=2, less=1</td>
</tr>
<tr>
<td>Out with family</td>
<td>twice weekly or more=3, once monthly to once weekly =2, less=</td>
</tr>
<tr>
<td>Out with friends</td>
<td>once weekly or more=3, once month to three times month=2, less=1</td>
</tr>
<tr>
<td>Suggesting to friends</td>
<td></td>
</tr>
</tbody>
</table>

(3 = OFTEN, 2 = SOMETIME, 1 = RARELY)
CORRELATION MATRICES FOR THREE FACTORS OF THE SOCIAL SITUATIONS QUESTIONNAIRE

SCALE 1

1. Places other than pubs 1
2. Visiting friends .40 1
   p=.00
3. Out with family .36 .57 1
   p=.01 p=.00
4. Out with others .24 .47 .31 1
   p=.05 p=.00 p=.02
5. Evening with others .24 .26 .36 .40 1
   p=.05 p=.05 p=.01 p=.00
6. Evening talking with others .37 .39 .31 .49 .83 1
   p=.01 p=.00 p=.02 p=.00 p=.00

\( r = .40 \)
McKennell's =.79

SCALE 2

1. Answering telephone 1
2. Making 'phone calls .55 1
   p=.00
3. Answering door .50 .35 1
   p=.00 p=.01
4. Friends visiting .36 .39 .45 1
   p=.01 p=.00 p=.00
5. Evening with family .46 .31 .22 .31 1
   p=.00 p=.02 p=.09 p=.02

\( r = .39 \)
McKennell's =.76

SCALE 3

1. Going to pubs etc. 1
2. Greeting neighbours -.44 1
   p=.00
3. Talking to neighbours -.33 .70 1
   p=.01 p=.00

\( r = .49 \)
McKennell's =.75
### SUMMARY TABLE OF THE RESULTS OF THE ANALYSIS OF VARIANCE ON THE SCORES FOR SOCIAL SKILL IN THE GOAL/BEHAVIOUR ROLE PLAY TEST

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SUM SQUARES</th>
<th>DF</th>
<th>MEAN SQUARES</th>
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#### ERROR TERMS

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<tr>
<td>BCD</td>
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</tr>
</tbody>
</table>

A=schiz/control, B=male/female, C=positive/negative, D=familiar/unfamiliar

### INTERACTION EFFECTS

#### MEANS

Male positive=8.5  Male negative=7.42  
Female positive=8.6  Female negative=7.06
APPENDIX 6.1.

STILLS OF TWO SUBJECTS (ONE SCHIZOPHRENIC, ONE CONTROL) TAKEN FROM THE VIDEO-TAPES OF THE SEMI-STANDARDIZED CONVERSATION

Schizophrenic

Control
APPENDIX 6.2

## Contents

### Social skill and social skills training
- 1 Social interaction 2
- 2 Social goals 2
- 3 Social skill 2
- 4 Acquisition of social skills 3
- 5 Impairment of social skills 3
- 6 Origins and development of social skills training 4
- 7 Current status of social skills training 5
- 8 Changing social behaviour 6

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- 1 Non-verbal behaviour 10
  - 1.1 Facial expression 11
  - 1.2 Gaze 12
  - 1.3 Posture and gait 12
  - 1.4 Gesture 13
  - 1.5 Proximity 13
  - 1.6 Touch 14
  - 1.7 Personal appearance 14
  - 1.8 Vocal cues 15
- 2 Verbal behaviour 15
  - 2.1 Elements of speech 16
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    - 2.2.1 Basic elements of conversation: listening, talking 17
    - 2.2.2 Conversational sequence: opening, maintaining, ending 18
### 2.3 Assertive behaviour

#### 2.3.1 Standing up for your rights/not being cheated

#### 2.3.2 Making a request/asking someone out

#### 2.3.3 Coping with refusal

#### 2.3.4 Refusing a request

#### 2.3.5 Showing appreciation

#### 2.3.6 Making apologies

### 3 Assessment for social skills training

#### 3.1 Poor social functioning: identifying a client population for social skills training

#### 3.2 Referral and selection of clients for social skills assessment

#### 3.3 Purpose of assessment of social skill

#### 3.4 Methods of assessment

##### 3.4.1 The assessment interview

##### 3.4.2 Observation in the natural setting

##### 3.4.3 Self-report measures

##### 3.4.4 Assessment using role-played scenes

#### 3.5 Goal-setting

#### 3.6 Evaluation of social skills training programmes

### 4 Basic training methods

#### 4.1 Instruction

#### 4.2 Modelling

#### 4.3 Behavioural rehearsal (role-play)

#### 4.4 Warm-up exercises

#### 4.5 Reinforcement

##### 4.5.1 Feedback

##### 4.5.2 Rewards

#### 4.6 Homework assignments

### 5 Designing social skills training programmes

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Preface

This manual is intended for all those professionals—nurses, teachers, psychologists, psychiatrists, occupational therapists, social workers, probation officers, etc. who are using or wish to use social skills training with the people they are trying to help. It is a practical guide to doing social skills training.

The impetus to write this manual came from a variety of sources, not just our experience in training people in social skills during the course of our clinical work, carefully recording our programmes and methods as we proceeded. This experience was broadened through the training of people from a wide variety of professional backgrounds and orientations. These people were hoping to use or were already using social skills training with different types of clients, such as prisoners, stammerers, psychiatric patients, and the mentally and physically handicapped in various types of settings. We had to respond to the difficulties many of these people were experiencing putting into practice with their particular clients what they had read in textbooks on social skills. These trainers’ workshops highlighted for us the pitfalls of applying predesigned packaged programmes to unselected clients. Consequently, we became aware of the necessity to train professionals in the skills of assessing and identifying social skill difficulties and in designing programmes to meet the specific needs of their selected client population.

Social skills training has developed very rapidly in recent years, but its progress has been somewhat marred by over-enthusiasm. It has become a fashionable term used so loosely as to encompass most of human activity from eating with a knife and fork to loving, understanding and empathizing with others. Yet it has a more precise meaning and the methods used are both simple and clear. We believe if the methods are to be further developed and used to their best advantage, they should not be confused, as they have been, with a variety of other approaches...
and those using social skills training methods should be clear about what they are doing and for what purpose.

Although many trainers/therapists have found social skills training of value, the results of early research on its effectiveness were disappointing. This, together with the general misuse of the term and the unsophisticated nature of some programmes, has meant that the method has come in for considerable attack. Our feeling is that it is too early to draw any conclusions as to its effectiveness until it has been properly tried and tested. We are still in the process of developing social skills training as a tool for change and it should not be surprising that poorly designed programmes do not work. As our experience and sophistication with the methods increases, so the research results become more encouraging. Looking to the future, we would hope that such methods would be part of general education, an acknowledgement by society that social skills are learned and not acquired through some automatic process.

This manual then is aimed at helping the would-be social skills trainer to do a good job. We have concentrated on what we see as the three major activities involved in doing this job: assessing problems, designing programmes and managing and running them. We are aware, of course, that in presenting the subject in this practical manner we have been able to give only the briefest coverage to information on social behaviour itself and have not involved ourselves in theoretical debates on the nature of social interaction, the relative importance of cognitive, emotional and behavioural components of skills training, or a research literature review. This is not to say that we advocate an uncritical acceptance of the method. We see evaluation of programmes as important; we see the development of more sophisticated methods as essential. We have worked together in this field over a number of years and have maintained our enthusiasm and enjoyment in the subject. For us social skills training is a positive and enjoyable form of training and we hope this manual will enable trainers to do it more effectively.

A final word about our orientation. We have worked largely within the psychiatric field and there is therefore a bias toward this type of client in the examples we have given. However, we have attempted to remedy this where possible by examples from other fields of endeavour, particularly by presenting a number of other programmes developed for other groups. We do advocate, however, that the reader use these only as fodder for his own creative solutions to his particular client's needs.

We would like to thank our patients for encouraging our work and those who attended our workshops for sharpening our thinking. Special thanks go to Nadine Hunter who organizes us and our activities without fault and to those who kindly contributed the programmes included in this manual.
Social Skill and Social Skills Training

1.1 Social interaction
1.2 Social goals
1.3 Social skill
1.4 Acquisition of social skills
1.5 Impairment of social skills
1.6 Origins and development of social skills training
1.7 Current status of social skills training
1.8 Changing social behaviour
1.1 SOCIAL INTERACTION

Person to person communication is an essential part of human activity. Most people in their day-to-day lives experience a wide variety of interpersonal situations. At work people interact with workmates and colleagues, the boss or subordinates. For the practical aspects of living it is necessary to deal with shopkeepers, bank managers, doctors, social security officers and the milkman. There are also, of course, the important interactions involved in developing and maintaining friendships, and in chatting to neighbours and acquaintances. Finally, there are the more intimate relationships of family, close friends, girlfriends, boyfriends and lovers.

1.2 SOCIAL GOALS

People interact with others for a variety of purposes, and each person will have his own aims or goals in a situation. Some goals of social interaction may be explicit and clearly defined, such as being successful at an interview, or changing an article at a shop, and the interaction can be extrinsically rewarded by achieving the goal (i.e. by getting the job or a new article). However, in many situations the goal may be implicit and less apparent, such as chatting at lunch time with a workmate or colleague, or simply greeting a neighbour in the street. Here the rewards are intrinsic, a part of the interaction itself. Such rewards might include being satisfied, interested, relaxed or stimulated in the company of others, all of which may lead to feelings of worth and increased self-esteem. How successful a person is in achieving his goals through communication with others, and thus receiving reinforcement for his behaviour, will influence his subsequent actions in similar situations.

1.3 SOCIAL SKILL

Communication with others involves both giving messages to another person and receiving and interpreting messages from him. It is a continuous two-way process in which the response also acts as feedback as to the effect of the message. The interaction will depend not only on the goals and messages a person wishes to convey, but on the situation he is in, his own personality, past experiences, what he observes of the other person and the consequent impression he forms of him. The
Social Skill

Communication itself involves the verbal or semantic content of speech, words and sentences used and, equally important, the non-verbal acts of the interaction, such as posture, use of eyes, tone of voice and facial expression. Verbal and non-verbal behaviour are therefore the means by which people communicate with others and they constitute the basic elements of social skill.

ACQUISITION OF SOCIAL SKILLS

Social skills are gradually acquired. The particular skills learned will to some extent be determined by the culture a person lives in and the particular social group to which he belongs. The child learns by imitating elders, and parents in particular provide important models on which he bases his own behaviour. There are other models, e.g. school teachers, peers and relatives, whose behaviour he observes in a variety of settings and subsequently may imitate. Instruction is also an important factor of learning. The child may be directly instructed in how to behave in particular social situations such as sharing toys with a friend, or asking a shopkeeper to show him where the pencils are kept. He is encouraged and rewarded for appropriate behaviour and discouraged for inappropriate behaviour. As the child develops he acquires the cognitive ability to assess situations, to be sensitive to other people, to review possible courses of action and to decide on the one which seems appropriate to him. In turn, the feedback he receives from others will inform him of the accuracy of his interpretation of a situation and appropriateness of his response. This is an on-going process and may continue into and throughout adulthood.

IMPAIRMENT OF SOCIAL SKILLS

Learning of appropriate social behaviour may be impaired for a variety of reasons, including lack of adequate models or learning opportunities, or poor instruction. Physical illness and disability or emotional difficulties can also disrupt the learning process. Alternatively, social skills may have been acquired and subsequently come impaired by periods of emotional disturbance such as anxiety, depression, psychosis or prolonged institutionalization. A deficit in social skills can in turn lead to the development of further social or psychological problems (see Section 3.1).
1.6 ORIGINS AND DEVELOPMENT OF SOCIAL SKILLS TRAINING

Social skills training has been developed as a method of teaching, in a systematic way, the skills of social interaction. This training has its origins in behaviour therapy and social psychology. Behaviour therapy itself developed from the application of learning theory principles derived from experimental psychology and gained much of its impetus from the clinical work of Wolpe (1958). This approach differed from previous approaches in that it focused directly on behaviour rather than underlying psychological causes of distress. Therapy was therefore concerned with re-learning new behaviour as opposed to gaining insight and restructing the personality.

Wolpe (1958, 1969) and Wolpe and Lazarus (1966) developed a variety of behavioural methods, including assertion training for treating patients who were anxious or extremely submissive in their work or social relationships. The techniques he employed in teaching assertive behaviour included behavioural rehearsal (role-play) and task assignment (homework). Assertion, originally meaning to stand up for one's rights, was defined by Wolpe more broadly as the 'proper expression of any emotion other than anxiety towards another person' (Wolpe, 1969). Interest in assertion training grew rapidly in the 1960s and the concept of assertiveness was gradually enlarged to include a wide range of social behaviours.

There have been a number of other important contributions from behaviour theory and therapy to the methods of social skills training. One of the most important concepts is that of reinforcement, i.e. that behaviour can be changed as a result of the consequences of that behaviour (Skinner, 1953). Positive reinforcement or reward following behaviour increases the probability of that behaviour occurring again, whereas no reinforcement or negative reinforcement is likely to diminish the behaviour. Another important concept, which has been emphasized by the social learning theorists, is that of modelling or imitation learning whereby complex responses are acquired through observing models performing them (Bandura, 1969).

Finally, various cognitive factors are currently considered to be relevant in producing cognitive and behavioural change. These include the way in which the person thinks about himself and his problems (Ellis, 1971; Meichenbaum, 1974; Beck, Rush, Shaw and Emery, 1980), his cognitive evaluative appraisal of the situation (Linehan, Goldfried and
The actual methods employed in social skills training are a combination of the above procedures and principles. They are instruction, modelling, behavioural rehearsal (role-play), reinforcement and homework assignments (see Chapter 4).

Increasingly, much of the content of social skills training, i.e. what is taught, is derived from the experimental work of social psychologists (Argyle, 1969, 1975; see Chapter 2). This work has been concerned with studying specific behaviour of individuals in social situations in order to identify the basic elements of social behaviour and the way in which they are used in interactions of various kinds. There is a growing body of knowledge about non-verbal aspects of communication and speech and conversation, as well as the rules and norms of behaviour determining the structure of situations. Social skills training programmes result from a synthesis of the findings of social psychologists with the training procedures developed by behavioural psychologists.

CURRENT STATUS OF SOCIAL SKILLS TRAINING

Social skills training has expanded rapidly over the last five years. It is now used as an important training procedure in a wide variety of settings with many different types of client populations, including psychiatric patients, the mentally and physically handicapped, young offenders, long-term prisoners and school and college students.

There are many different approaches to the design of social skills training programmes. There are those that are designed to give a general training in a wide range of social behaviours and situations, and such programmes vary in content according to the type of population for whom they are intended (Trower, Bryant and Argyle, 1978; Goldsmith and Fall, 1975; Spence and Spence, 1980). Other programmes are concerned with training specific behaviours, such as assertive behaviour control the expression of aggression (Rimm, Hill, Brown and Stuart, 1974), or skills for specific types of situations such as job interviews (Berbee and Keil, 1973) or heterosocial situations (Curran, 1977). Many people, however, prefer to design programmes to meet the specific needs of their individual clients (Liberman, King, De Risi and McCann, 1976;
Although these programmes vary in style and content, the common elements are that they all aim to change social behaviour and they all use similar methods of training to achieve this end.

1.8 CHANGING SOCIAL BEHAVIOUR

Social skills training is concerned with changing social behaviour. This method makes no direct attempt to change other aspects of the person's experience. However, as he becomes more socially skilled, changes in other dimensions may occur. He may become less anxious, less depressed, feel less inadequate and more confident as he becomes more effective in social communication.

If the aim of social skills training is to change behaviour towards a more skilful response, it is important to establish criteria for defining socially skilled behaviour. Argyris (1965, 1968) refers to social skill as those interpersonal behaviours that contribute to the individual's effectiveness as part of a large group of individuals. Libet and Lewinsohn (1973) define social skill as the 'complex ability both to emit behaviours which are positively or negatively reinforced, and not to emit behaviours which are punished or extinguished by others'. Hersen and Bellack (1977) state that 'the overriding factor is effectiveness of behaviour in social interactions. However, determination of effectiveness depends on the context of the interaction.' Trower, Bryant and Argyle (1978) conceptualize man as 'pursuing social and other goals, acting according to rules and monitoring his progress in the light of continuous feedback from the environment'.

From these definitions it would appear that behaviour is judged to be socially skilled within a particular social context. There will be some purpose or goal in the interaction and the behaviour will be rewarded by feedback or reinforcement from others. However, none of these descriptions defines a skilful response in terms of specific behaviour in a given situation. Attempts have been made by social psychologists to establish the norms of social interaction in terms of the non-verbal and verbal behaviour appropriate in communicating specific messages (Argyle, 1969). Other studies have attempted to establish what behaviours constitute a competent response (Eisler, Miller and Hersen, 1973; Goldsmith and McFall, 1975). However, how effective a person is will depend on what he wishes to achieve in the particular situation he is
Behaviour considered appropriate in one situation may obviously be appropriate in another. The individual also brings to the situation his attitudes, values, beliefs, cognitive abilities and unique style of interacting. Finally, social skill must be seen within a particular cultural network, and patterns of communication vary widely between cultures and within any one culture depending on factors such as age, social class and education.

Clearly, there can be no absolute 'criteria' of social skill. Although in experimental settings it might be shown that certain behaviours are more likely to achieve a particular goal, a competent response is usually what people generally agree is appropriate for an individual in a particular situation. Similarly, there can be no universally 'correct' way of behaving in a situation, but a number of different approaches which may vary according to the individual. Thus, two people may behave quite differently in a similar situation, or indeed one person in two separate but similar situations, but both responses might be considered to be equally socially skilled.

The implications of these issues are extremely important. Social skills training misapplied can be used to coerce the individual into conforming rigid, stereotyped patterns of behaviour. At its best it can be used to rease the client's behavioural repertoire and awareness of social situations and offer him a wide variety of behavioural alternatives from which he is free to choose as, and when, he so wishes.
2 Social Behaviour

2.1 Non-verbal behaviour
2.1.1 Facial expression
2.1.2 Gaze
2.1.3 Posture and gait
2.1.4 Gesture
2.1.5 Proximity
2.1.6 Touch
2.1.7 Personal appearance
2.1.8 Vocal cues

2.2 Verbal behaviour
2.2.1 Elements of speech
2.2.2 Conversation skills
2.2.2.1 Basic elements of conversation: listening, talking
2.2.2.2 Conversational sequence: opening, maintaining, ending

2.3 Assertive behaviour
2.3.1 Standing up for your rights/not being cheated
2.3.2 Making a request/asking someone out
2.3.3 Coping with refusal
2.3.4 Refusing a request
2.3.5 Showing appreciation
2.3.6 Making apologies
The social skills trainer must be familiar with the elements of social behaviour as described in this chapter in order to assess social skill deficit and design and carry out social skills training programmes.

As we have seen, social interaction is a complex process involving not only the behaviour, but the thoughts, feelings, values and attitudes of those participating. In terms of social skills training, however, the primary concern is with the basic elements of behaviour, both non-verbal and verbal. For example, in a conversation a person uses words to communicate a particular message. His facial, body and vocal cues can act to emphasize or reinforce this, or they can give a completely different message. These non-verbal elements also give information about the emotional meaning of the interaction and indicate the nature of the relationship between the individuals concerned. As he is speaking the person observes and assesses the other's behavioural response to what he is saying. This information, together with the consequent response, influences the next communication and so on. Research in social psychology is gradually elucidating the important elements of this process (Mehrabian, 1972; Argyle, 1972, 1975).

Whilst research is increasing our knowledge about the use of non-verbal and verbal behaviour, this information can only be used as guidelines in the training of social skill. It is evident, as discussed in the previous chapter, that a large number of factors will affect social behaviour in terms of the particular messages conveyed, as well as the channels used to convey those messages. Cultural factors are of particular importance and much of the research and the content of this chapter is based on Western culture. Also, within a society factors such as race, class, age, sex and social status will considerably affect the form and content of social interaction and therefore the skills involved. Moreover, people develop individual styles of interacting which become intrinsic to their personality and self-image. It is essential therefore when applying the following information in a training situation to be sensitive to the possible variations and exceptions that exist.

2.1 NON-VERBAL BEHAVIOUR

Non-verbal communication is unavoidable in the presence of other people. A person may decide not to speak, or be unable to communicate verbally, but he still gives messages about himself to others through his
and body. He is usually less aware of his non-verbal communication of the verbal content of his speech. Non-verbal messages are also received unawares. People form impressions of others from their verbal behaviour without identifying what it is about the person that eable or irritating, unless of course the behaviour is gross and easily tifiable.

Non-verbal messages have various functions. They can replace words together as when a parent quietsens a child by a threatening glance or a on adopts a mode of dress that expresses rebellion. They can repeat t is spoken such as waving and saying goodbye. Importantly, they emphasize a verbal message particularly of the emotional type: the ched fist, wide eyes and loud voice adds strength to angry words. -verbal cues also regulate interaction. In conversation a person will al to the other by a nod or a look that it is his turn to speak. Similarly, co-operative work situation a person may receive a gesture or head indicating his turn to take over the work task. Finally, the non-verbal sage can contradict the verbal message. This is rarely done tionally but the facial expression or a movement of the hands can al the true feelings which may be denied in the verbal content of the sage. A common example is a person’s reply to the question ‘How are ?’. He may say he is fine, though his face reveals a state of apparent appiness (Mehrabian, 1971; Ekman and Friesen, 1969).

following subsections give the elements of non-verbal behaviour.

1 Facial expression

ial expression, with its visible mobility and flexibility, is the most ortant means of communicating non-verbally (Ekman, Friesen and worth, 1972; Ekman and Friesen, 1975). The face can communicate, example, the degree of liking or understanding of, interest or lvement in, a person or situation. It expresses emotional states ging from happiness to despair. Feelings are often reflected in the e even when the person wishes to disguise them. The face can respond antaneously and is the most effective way to provide feedback to ther person. For example, showing surprise and interest by raised brows, or disapproval by a frown or tightened lips. Typical or syncratic expressions also convey information about personality and ntity.
2.1.2 Gaze

Eye gaze indicates that we are attending to others and is used in the perception of non-verbal signals of others. It is used to open and close communication channels and is particularly important in regulating and managing speaking turns (Kendon, 1967; Argyle and Cook, 1976). A period of eye contact often starts an interaction during which the listener usually looks at the speaker whose gaze may be averted a good deal of the time while speaking. The speaker will meet the gaze of the listener both to check that he is attentive and also to signify his turn to speak. Gaze can also be used to express emotions and attitudes. A strong gaze may indicate dominance or aggression and a person with little eye contact is usually seen as submissive or shy (Strongman and Champness, 1968). Eye contact is a common means of expressing affiliation and more intimate relationships. Gaze aversion may reflect, or be interpreted as, an unwillingness to interact.

2.1.3 Posture and gait

The position of the body and limbs, the way a person sits, stands and walks reflects his attitude and feelings about himself and his relationship to others (Mehrabian, 1972). Posture can reveal warmth, congruence with others, and the status and power in relation to the other. People may adopt different postures to those they like and dislike (Mehrabian, 1968). Leaning towards a person may show positive feelings toward him, whereas turning away may be an attempt to distance oneself. High status people tend to adopt more relaxed postures in the presence of junior people, who are likely to maintain a more formal sitting position in this situation (Mehrabian, 1968).

Posture and gait may also reflect a person's emotional state, particularly the degree of intensity and whether it is positive or negative (Ekman and Friesen, 1967). A message of anger can be emphasized when a person becomes tense and rigid, put his hands on hips and stamps his foot. Certainly, people use information from the position of a person's body to form impressions of them. A person who enters a room walking slowly with hunched shoulders may be thought of as timid, whereas the straight back and purposeful gait may convey a message of confidence. Individuals of course also have their own characteristic styles of posture and gait which reflect their personalities and self-image.
**Gesture**

Gestures have been found to be second in importance to facial cues means of non-verbal communication (Argyle, 1969). They sometimes the only means of communication, as when attempting to municate with someone whose language we do not speak. Gestures out words are used in other situations, such as directing a person to stand, waving when greeting someone at a distance or warding off attacker. Gestures also reinforce verbal messages, as when shaking a when shouting angrily, or showing the shape of something with the Is as it is being spoken about. Information about feelings can be ed by ‘redundant’ movements. Scratching the face or picking at ses can indicate anxiety or even impatience, although they may ly be idiosyncratic habits (Ekman and Friesen, 1967).

**Proximity**

near, or far, high or low, people are in relation to others are all cts of personal distance. People communicate their degree of liking, timacy and of differential role status through distance. A distinction been made between intimate (0-18 inches), personal (18 inches-4 , social (4 feet-12 feet) and public distance (12 feet or more) (Hall, ). The form of a relationship and type of information exchanged at distances will vary enorously from intimate exchange of idences, through exchange of personal but less confidential material ersonal business or social exchange. Interpersonal communication mes impracticable at a public distance. The quality of an action may also be affected by the spatial relationship between the ipants of an interaction, whether they are standing, or sitting, or seated and the other standing.

e are also important individual differences, some people seeming quire a greater space between them than others (Porter, Argyle and r, 1970). This may be determined by factors such as height, a tall on requiring to stand further away from a shorter person in order to omfortable eye contact. Cultural factors and social conventions ortant controllers of distance. For instance, it may be possible for le to tolerate and enjoy being closer at a party than in an office tion, and people usually unconsciously adjust the distances een them in order to feel more comfortable.
2.1.6 Touch

This is the earliest form of communication in infancy and important throughout life for expressing affiliative, sexual and aggressive feelings. Holding, caressing and stroking occur in nurturing, sexual and friendly relationships, and the amount and type of contact tends to vary with the degree of intimacy between those involved. Touch in these situations is used to communicate warmth, caring, love and affection as well as to signal emotional states such as fear, distress and exuberance. Touch is also used to express aggression by hitting, pushing or punching another person. More ritualized touching is a part of greetings and farewells, e.g. shaking hands or kissing cheeks. It may or may not have any emotional significance in such situations depending on the relationship of the people involved. Touch is also used to direct and instruct others, to steer a person by the elbow to a chair or guide his body in a particular action when teaching a motor skill.

There are enormous cultural variations both in the type and amount of touch used, and within a society the norms will vary for different groups (Argyle, 1969). Individuals in any one group will also vary in the amount of touching they personally will tolerate or enjoy. Play in young children involves a great deal of bodily contact but this decreases with age. Nurturant touching has to some extent become confused with sexual touching and physical contact between adults is uncommon in Britain compared to other countries (Jourard, 1966). However, the use of touch in friendship has been shown to be extremely socially rewarding for both giver and receiver (Mehrabian, 1972).

2.1.7 Personal appearance

Personal appearance not only affects our self-image but also our behaviour and the behaviour of people around us. Styles of dress, hair, cosmetics and jewellery provide a basis for first and sometimes long-lasting impressions (Walster, Aronson, Abrahams and Rottman, 1966). They convey messages about social status, personality, attitudes and emotional states (Kefgen and Touchie-Specht, 1971). Formal or informal dress may be chosen depending on the situation, the impression a person wishes to create and the way he wishes to feel. Thus, he may wear a pair of jeans and a sweater to go to a party and a suit and shirt to address a gathering or attend an interview. Appearance serves to differentiate between people: the old from the young, the formal from the informal,
8 Vocal cues

Vocal cues are concerned not with the content of speech but the way in which the words are spoken. They include emotional tone, pitch, volume, ity, speed, emphasis and fluency, the ums and ers, pauses and tations. Vocal cues can drastically affect the meaning of what is said how the message is received. The same sentence spoken in various as of voice, or with particular words emphasized, etc. can convey different meanings. I love you, can be said affectionately, teasingly, ically or cruelly. The message conveyed in the words themselves can ess important and even contradicted by the tone of voice in which it poken (Ekman and Friesen, 1969). Voice cues particularly convey tional states, although different people express the same emotions in ues ways (Argyle, 1969). However, people who are anxious tend to more slowly, stutter, are repetitious and incoherent, while anger is ally expressed by a high-pitched, strong, loud voice (Eldred and Price, 8; Cook, 1969). People also form judgements of others from their e cues. Those people with a variety of voice pitch are likely to be ged as dynamic and extraverted and those with slow, flat speech as gish, cold and withdrawn. A person with a nasal voice is often ceived as unattractive, lethargic and foolish (Addington, 1968).

se non-verbal elements are rarely used in isolation. The meaning veyed is usually a result of a combination of cues together with al behaviour and is assessed within a given context or situation. Non- al behaviour is sometimes wrongly learned or inappropriately used, as a result, an attitude can be conveyed which is misleading or aging to a social interaction. It is possible to improve skills in both ding and receiving non-verbal messages in order to be more ressive and increase sensitivity to others and thus communicate more ctively in social and interpersonal situations.

VERBAL BEHAVIOUR

Each is used for a variety of purposes, for example to communicate as, to describe feelings, to reason and argue. The words used will
depend on the situation a person is in, his role in that situation, the topic under discussion and what he is trying to achieve (Ervin-Tripp, 1973).

Situations vary from the intimate informal ones, such as friends talking over coffee at home, to the more formal ones, such as a discussion between an employer and employee at work. They will vary in terms of the range and amount of speech acceptable in those situations; a discussion with the boss at work is likely to be more restrictive than talking over coffee at home. The role a person is in will also be a determining factor, whether teacher, pupil, boss, worker or friend. In addition, each person brings to the situation his own personal style in terms of, for instance, how much he generally speaks or the characteristic phrases he uses.

The topic or content of speech of course, also varies. It can be highly personal, as between lovers or a mother and child, or impersonal, as between a shopkeeper and shopper. It can be concrete, as when giving directions to a particular building or describing a new dress, or abstract, as when discussing the relative merits of different political systems, or the meaning of happiness. It can be about matters internal to the speaker, his thoughts, feelings, attitudes and opinions, or external affairs, such as the organization of the office. It can vary in subject matter from the weather, gossip, family affairs or the latest car, to politics, religion and philosophy.

2.2.1 Elements of speech

Speech in interpersonal communication can be used to impart information to others about external factual matters or about more personal matters, opinions and attitudes. Comments are used to express agreement, disagreement, liking or disliking on matters being discussed or activities around. Questions are asked and requests made for information, services, goods or social responses. Speech is also used to instruct others in what to do, ranging from giving commands and directions to making tentative suggestions, and is an integral part of cooperative work whether in the classroom or at the work-bench. These different types of speech function to produce reactions in others through answers to questions, complying with requests, following instructions or enlarging on information. There is, however, the expressive monologue in which the speaker speaks for himself regardless of the effect he is having on others.
2 Conversation skills

The main form of interpersonal verbal communication is conversation. It may be brief or extended, be concerned with problem-solving, acting, conveying information to others or simply with enjoying and sining social interaction. A conversation can be broken down into a ber of processes, which are discussed below. It is important to ember that conversation does not consist of speech alone but ides the use of the non-verbal signals previously described.

2.1 Basic elements of conversation

Listening

ning is important in order both to understand and to communicate est in and feelings about what the other is saying (Barker, 1971). It is way of providing feedback to the speaker who needs to know how his sages are being received, whether he is being clear, understood and peted (Tustin, 1966; Leavitt and Mueller, 1968). Effective listening ides the speaker with necessary reinforcement for him to continue onversation. Non-verbal skills are particularly important in listening; contact, facial expression, the raising of an eyebrow and the nod of head. The verbal aspects include sounds or isolated words of ement and encouragement or a comment on the events, feelings and d the person is expressing, e.g. ‘That sounds exciting’ and ‘That must been awful’.

Speaking

ryone has experience, feelings and knowledge of various kinds, and is what is exchanged in conversation. Much of conversation is about yday matters and people often talk about things they have done or involved in. Conversations often start with factual information and eral statements, e.g. ‘I went away last weekend’, which are followed pecific statements giving details of what was done, seen, etc. For
example, ‘We stayed with an old friend and visited the local sights.’ It then moves on to include the expression of feelings, attitudes and opinions about what is being described: ‘It felt really good to get away and relax for a while.’ Conversely, the other person can be encouraged to talk by asking questions that can be general, specific or about feelings or attitudes. Open questions rather than closed questions encourage the other to elaborate rather than giving single word replies, e.g. ‘Did you go to the match at the weekend?’ demands only a yes or no reply, whereas ‘What did you do at the weekend?’ demands a lengthier or more elaborate response.

### 2.2.2.2 Conversational sequence

**Opening a conversation**

There are a number of different ways of starting a conversation that are conventional and will vary according to the situation and whether the people involved are acquainted or not.

For example

1. Asking a question or making a request, e.g.
   ‘Do you know what time it is please?’
   ‘Where’s a good place to eat around here?’

2. Comments about the environment, e.g.
   ‘It’s cold in here today.’
   ‘I’ve never seen this shop so full….’
   ‘They seem to have painted this pub since I was here last.’

3. Greetings, e.g.
   ‘Hello, how are you?’
   ‘Hi, what have you been doing?’

4. Exchanging names, information about place of living, occupation, marital status, social contacts, e.g.
   ‘Hello, I’m Ron, what’s your name?’
   ‘Good morning, I’m Mr Jones from the record department….

5. Personal questions or remarks, e.g.
   ‘You look good today.’
   ‘I like your hair.’
ntaining a conversation

The way the conversation proceeds will clearly depend upon the type of opening sequence. The conversation will continue by a question, a hment or the giving of information which may or may not be related to the opening remarks. A number of topics may be briefly explored before settling on one of mutual interest or a particular topic may be explored at a deeper level. In maintaining a conversation it is important that it does not become disjointed by a person talking about something completely different in response to the partner. A person can be embarrassed and hurt and the other considered rude if a topic is not taken up.

In order to keep a conversation going and flowing smoothly, it is necessary to respond appropriately to the theme of the conversation by giving some further information, disclosing feelings or asking a relevant question. Having explored one topic area a link statement can be used in changing to another subject, e.g. ‘Talking of going to the match on Saturday reminds me I have to get the car fixed by then, there’s nothing wrong with the radiator.’ This might be followed by a discussion of car maintenance opened by a question such as: ‘Do you know anything about radiators?’ Changing the subject might also be done more openly and blatantly by saying ‘I know this has nothing to do with what we are talking about but....’ This would be appropriate only at a natural pause in the conversation.

Taking turns in speaking and listening is also important in developing and maintaining a conversation (Duncan, 1972). This involves paying careful attention to the non-verbal behaviour of others. The other will indicate when he is ready to hand over the conversation by eye contact and adjustment of voice as well as by the content, e.g. asking a question. He may also be responding to the non-verbal signal of the listener who will have indicated through eye contact, facial expression and posture that he wishes to speak (Kendon, 1973). In any satisfying conversation taking turns operates by mutual agreement but not involve all parties making equal contributions. By careful listening, constant interruptions or prolonged silences are avoided.

ending a conversation

In ending a conversation and leaving the situation people usually indicate their readiness to leave non-verbally as well as verbally, e.g. they sit forward in the chair in readiness to stand up, get out car keys, draw gaze and use a phrase such as ‘I must go now because....’
statement may also include an indication of further contact, e.g. ‘I’ll see you tomorrow’, accompanied by parting looks, a smile and movement away. Many people develop their own individual routines for partings such as ‘Bye, see you soon’. When not actually leaving the situation it is usual to signal that the conversation has ended by withdrawing eye contact and engaging in some other activity. This may or may not be accompanied by a remark such as ‘I must get on with...’.

2.3 ASSERTIVE BEHAVIOUR

Assertive behaviour has been defined as ‘behaviour which enables a person to act in his own interests, stand up for himself without due anxiety, and to express his rights without denying the rights of others’ (Alberti and Emmons, 1974). Lazarus (1973) proposed a broader definition, suggesting that assertive behaviour be divided into four separate categories: the ability to say ‘no’; the ability to ask for favours or make requests; the ability to express positive and negative feelings; and the ability to initiate, continue and terminate general conversation.

In this sense, assertive behaviour is almost synonymous with the term ‘social skill’. In this manual the term ‘assertion’ is being used more specifically to cover all areas of self-expression which is similar to the definition of Wolpe who refers to assertion as ‘the proper expression of any emotion other than anxiety towards another person’ (Wolpe, 1969). Self-expression includes the ability to communicate feelings to others, to express friendship and affection, annoyance and anger, joy and pleasure, grief and sadness, and to both give and accept praise and criticism.

When being non-assertive a person denies his needs and fails to express his feelings. He may be unable to say no to an unreasonable request, to ask someone to do something for him, to defend himself against accusation, or to tell someone how he feels about them. Assertion is not simply dealing with negative situations but is rather a style which may influence many social interactions. Being assertive does not mean being aggressive. Aggression may be the individual’s only response in situations where he needs to stand up for himself or make his needs known, and the aggressive person may therefore need to learn to be assertive rather than aggressive in these situations.

There are many situations in which assertive behaviour would be appropriate, and the examples in the following subsections are just a few of the situations which many clients report having difficulty with and which are often included in training programmes.
Standing up for your rights/not being cheated

In a situation where a person has, for example, been deliberately sold a defective article, such as a bag of apples, some of which are rotten, it is important to make a quick assessment of the situation and confront the seller without apologizing, using a firm, polite and steady voice, looking clearly in the eye: ‘Excuse me, do you realize two of the apples in the bag are rotten.’ If the person tries to get out of the situation, the request should be made firmer: ‘These apples are rotten, would you please change them.’ (It is of course useful to know your legal rights in such a situation and this can be resorted to if all else fails.)

Making a request/asking someone out

When asking someone out it is important to be direct and positive without embarrassment, making the message as clear as possible. Eye contact, facial expression and tone of voice are particularly important here. It may be useful to sound out the person first before making the actual request, e.g. ‘I sometimes go to the pictures, would you like to go some time?’ The reply will give some indication as to whether or not to proceed with a direct request: ‘Do you want to come to the Odeon with me on Saturday night?’

Coping with refusal

When asked a person out there is always the possibility that they may refuse. In this case it is important to recover from the situation and not feel disappointed to feel that the situation has been handled well. This can be done by making a face-saving statement, e.g. ‘Do you want to come to the Odeon on Saturday night?’

Refusing a request

When saying no to another’s request a judgement as to the reasonableness of the request has to be made. If it is a reasonable request, e.g. being asked on a date by a friend, the refusal will often be accompanied by an acknowledgement of the person’s feelings: ‘I am sorry, I can’t, I have to look after my sister’s baby tonight.’ If the request is unreasonable, an acknowledgement of the person’s
needs, accompanied by a definite no without a justifying account is necessary, e.g. 'I realize you would like me to stay in tonight, but no I can't.' If the person persists with the request, it is important to point this out, e.g. 'I've said no, don't go on about it.'

2.3.5 Showing appreciation

Paying compliments is one way of showing appreciation for a person or expressing positive feelings toward another. These might be about a person's appearance, e.g. 'You're looking attractive today', or about aspects of his personality or behaviour or things he has achieved, e.g. 'What a super meal you cooked today.' It is important to convey warmth through tone of voice, eye contact and facial expression.

2.3.6 Making apologies

Being able to apologize is very necessary since people inevitably find themselves in situations where they have either made a mistake or where things have gone wrong. These are situations which, because they are difficult to handle, are sometimes avoided, e.g. a person has invited a friend round to his house and has forgotten and gone out. The following day he sees the person at work. When apologizing it is always desirable to make the approach first if possible and to state clearly and firmly with direct eye contact the apology. 'Look, I really am very sorry about last night. I completely forgot.' It is then necessary to make good the situation, maybe in this case by repeating the invitation: 'I would like you to come, can you make it tomorrow evening?'

This chapter has been concerned with the basic elements and forms of social interaction. Many social situations are of course more complex than those described here but nevertheless will involve the application of the basic skills. In social skills training those complex situations can be broken down, discussed and strategies for dealing with them practised and learned.
These might include such interactions as:

(a) forming and maintaining friendships with people of the same or opposite sex,
(b) job interviews,
(c) dealing with a dominant member of the family,
(d) dealing with authority figures or professionals,
(e) taking a leadership role, as in a work situation.
Assessment for Social Skills Training

3.1 Poor social functioning: identifying a client population for social skills training
3.2 Referral and selection of clients for social skills assessment
3.3 Purpose of assessment of social skill
3.4 Methods of assessment
3.4.1 The assessment interview
3.4.2 Observation in the natural setting
3.4.3 Self-report measures
3.4.4 Assessment using role-played scenes
3.5 Goal-setting
3.6 Evaluation of social skills training programmes
As yet, little has been established regarding the factors that determine the development and appropriate performance of social behaviour, and consequently the reasons for deficiencies in social skills. However, it would seem reasonable to accept that social behaviour is learned and that a number of disruptions can occur in both learning and performance. The person may never have acquired the skills necessary for making satisfactory social relationships or dealing with a wide variety of situations. Failure to learn these skills may derive from a number of circumstances. The person's interpersonal environments may not have been instructive; parents as models for the child may have been deficient, idiosyncratic or non-existent; there may have been conflicts between social requirements and parental reinforcements; or skills may have been acquired in a restricted range of environments, either because of lack of opportunity or emotional factors such as anxiety or embarrassment leading to the avoidance of those situations.

Failure to learn social skills can lead to isolation, loneliness, rejection, poor self-image, low self-esteem and may be an antecedent to a wide range of psychological problems and disturbances of behaviour. People can present with anxiety, depression, sexual problems, aggressive behaviour, delinquency, etc. or simply complain of an inability to get on with people, shyness or loneliness.

Poor social functioning can also arise as a consequence of other problems of a psychological, physical, social or organic origin, which may affect all areas of behaviour, including social behaviour. Extreme anxiety, depression, schizophrenia, mental and physical handicaps can all be associated with problems in social behaviour, the learning of which may have been disrupted as a consequence of these other problems. In some cases it may be that social behaviour has been acquired, but the individual is temporarily unable to engage in social activity because of other emotional or physical problems. The depressed person may avoid social contact which in itself may deepen the depression. The stroke patient may have lost confidence and be having difficulty adjusting to his changed physical status. Finally, a prolonged stay in an institution such as a hospital or prison can affect the social behaviour of the individuals in them. Institutions often provide a very restricted learning environment, as well as developing a social culture unique to themselves and unrelated to a wider social context.
The extent of any individual's deficit can vary. It may involve a particular behaviour such as eye contact or include every aspect of social behaviour, verbal and non-verbal. The difficulty may occur in a variety of settings or be limited to certain situations, such as those involving authority figures or members of the opposite sex. As illustrated in case examples given (Figure 1), the clinical diagnosis or label assigned to the individual can be varied. Whatever this might be, it is important that the problems in social functioning are recognized so that the appropriate training can be given. It may be necessary, with some individuals, to work with other aspects of his problem, thus necessitating use of other methods. However, there will be people for whom social skills training alone may lead to the alleviation of other problems consequent on the social skill deficit.

Whether the social skills deficit is seen as a cause or a result of some other problem is often difficult to determine. What is most important is to establish a thorough and comprehensive definition of the person's problem or problems so that suitable treatment and training strategies can be adopted. The social skills deficit needs to be carefully assessed and considered in relation to any other problems the individual may be experiencing.

REFERRAL AND SELECTION OF CLIENTS FOR SOCIAL SKILLS ASSESSMENT

The client is selected for social skills assessment will depend on the organizational structure and the role of the therapist/trainer. If the client has been referred by someone else, it will be necessary to carry out a highly detailed general assessment before focusing on the social skills problems. Where the therapist already knows his client well and has already conducted, or been present at, a general assessment interview, it is possible to proceed straight to the detailed assessment of social skill.

It is important to establish and maintain a good working relationship with referring agents, specifying the type of problems for which social skills training is useful. Feedback from the assessment should be given and if training is not thought to be suitable, the reasons should be stated and possible alternatives suggested. In this way the referring agency learns which clients are more likely to benefit from social skills training.
EXAMPLES OF CLIENTS WITH SOCIAL SKILL PROBLEMS

John B. is 25 years old. He lost both legs in a car accident and suffered minimal brain damage resulting in some loss of speech fluency and is confined to a wheel chair for a good part of the day. He was always a sociable person finding relationships with others easy and pleasant. Since the accident he has become withdrawn and is embarrassed and unwilling to meet with other people, including his former friends. He finds asking for and receiving help particularly difficult.

Jane T. is 17 years old. She originally presented with depression and agoraphobia. She left school 8 months ago and has been unemployed since that time. At school she was excessively shy, made no friends and was unable to respond in class when asked questions. She was a severe school refuser and consequently, though quite bright, has a poor academic record. She finds the thought of job interviews and the prospect of going to work terrifying and rarely goes out of the house.

Terry S. is 28 years old and has worked successfully in a bank since leaving school. He has always had an active social life with many friends with whom he has been a popular figure. At work he related well to his immediate colleagues and had been making steady progress in his career. Ten months ago he was promoted to assistant manager and within three weeks he lost his voice at work. This symptom, for which no physical basis was established, continued and a diagnosis of hysterical aphonia was made. There is some fluctuation in his voice volume from being completely unable to make a sound to low volume speech. The condition seems to be exacerbated when he is required to use his authority in interpersonal situations at work.

Figure 1.
Mary J. is 25 years old. She is mentally handicapped and has been living in an institutionalized environment since she was six months old. Her speech is good and she communicates well with other patients and staff in the hostel where she lives. However, on outings she tends to approach strangers, particularly men, offering sweets and asking them personal questions to seek reassurance of her attractiveness. This frequently causes embarrassment to others and creates a situation where she is rejected.

Kevin S. is 29 years old. He has been released from prison after serving a six months' sentence for assault. He has always had difficulty in getting on with people and appears surly and aggressive. Although he has been married and now has a girlfriend, he finds it impossible to show any positive feelings in close relationships. Currently he has a job in a warehouse but he keeps very much to himself and has difficulty in taking orders in his job. He is afraid that he will become aggressive and the previous pattern will be repeated, resulting in him ending up in prison again.

Jo B. is 40. He has been a hospitalized psychiatric patient for fifteen years and is diagnosed schizophrenic. He is now taking part in a rehabilitation programme and is due to go to a group home in three months' time. He has no difficulty with the practical aspects of living such as cooking, etc. and responds well when spoken to, but has not been seen to initiate contact with others. He himself complains of loneliness, has no friends on the ward but gets on well with the staff. His appearance is scruffy and unkempt and he walks with a stoop.
3.3 PURPOSE OF ASSESSMENT OF SOCIAL SKILL

The client's social skill needs to be assessed for the following reasons:

(a) To specify the social skills assets and deficits of the prospective client.
(b) To assess the client's motivation for change.
(c) To decide whether social skills training is the most suitable form of training/therapy.
(d) To give information about social skills training.
(e) To identify and set training goals.
(f) To design the programme.
(g) To monitor the progress of the client.
(h) To evaluate the effectiveness of the programme.

Systematic assessment is one of the most important factors in social skills training. The success or failure of any training programme may ultimately depend upon careful assessment. It is important that clients are not allocated randomly to social skills groups, but that training programmes are designed to meet the particular needs of the client or groups of clients. This requires careful and detailed assessment throughout the training.

3.4 METHODS OF ASSESSMENT

3.4.1 The assessment interview

A focused interview offers a very good way of eliciting social and interactional data from individuals who are able to report on their behaviour with reasonable accuracy. As is true of all clinical interviews, those which focus on the person's behaviour with others depends on establishing a good rapport. The atmosphere should be relaxed and friendly and the interviewer, whilst concentrating on actual behaviour, should be sensitive to the person as a whole.

Some thought should be given beforehand to the environment and seating arrangements. Chairs should, if possible, be of the same height and placed at a distance and angle to assist, rather than hinder, the interaction. There should, if possible, be no interruptions.
well as preparing the setting and himself, the trainer should be prepared
self. Is he clear about the purpose of the interview? Does he have all
ecessary data from previous interviews? Is he clear what infor-
tion he requires and what he needs to impart? If he is interviewing
co-trainer, who is going to ask what questions?

ing prepared the setting and himself, the trainer can now proceed
the interview. He should first welcome the client and then explain to
the purpose of the interview, making sure that the client has under-

he will want to obtain detailed information about the person’s
personal and social relationships, and difficulties in social
ations. What are the problems? In which situations do they occur?
at actually happens? How does the individual behave in these
ations? How do others respond to him? Who are the people involved?
often does it occur?

example:
at is the problem?
I have a terrible stutter and I can’t go to school.’
which situations?
When I’m asked a question in class.’
at actually happens?
I think I know the answer and start talking and then get all muddled
and start stuttering and waving my arms about and then my mind goes

at happens next?
Sometimes I just sit down and feel awful and last week I ran out of the
m.’
o are the people involved?
Well — it happens with all the teachers but it’s worse with one
rticular one.’
often?
Just about every day.’

ly in a small number of clients will the difficulty be restricted to one
ation and all the situations should be explored in this way.

ently clients will talk initially about personal problems in terms
 unhappiness, anxiety, depression, conflict, etc. rather than the ability
ability to handle social relationships. It is therefore important that
viewer structures the interview around specific interpersonal
relationships and situations. For example, a client may report ‘anxiety’ in interpersonal situations. This could mean a number of things:

For example
(1) he remains silent;
(2) he talks non-stop;
(3) he stutters and stammers a great deal;
(4) he smiles and giggles;
(5) his heart beats rapidly and he feels queasy; or
(6) he feels stupid and inadequate although he appears to perform adequately.

The interviewer should establish which of these reactions the client experiences and in what situations.

A client might report a general feeling of depression. She could then be asked about situations at work, at home or in her social life in order to elicit information about how she handles the interpersonal aspects of those situations and to identify areas of difficulty or avoidance.

The interviewer should always check carefully what the client means by the words and phrases he uses. They may both attribute different meanings to words and it is only by asking for details that the interviewer can get a clear idea of the nature and degree of the social deficits.

The emphasis of the interviewer will be on the difficulties which the client is experiencing, but it is important that the positive aspects of the client’s social functioning are not ignored. What does he do well? What does he cope with adequately?

The interviewer will receive information on the client’s performance not only from what he reports, but by observing his behaviour throughout the interview, e.g. the fluency and content of speech, the attitudes expressed, his posture, eye contact, etc. and this valuable source of material should not be overlooked.

Having obtained detailed information about the client’s social functioning, the trainer will need to establish what changes the client would like to make, i.e. what he would like to achieve and the extent to which he is prepared to work towards making these changes (a detailed analysis of goals will be made later). It may be that there are factors in the client’s environment which sustain the unskilled or maladaptive
behaviour, e.g. a father seeing his son's violent behaviour as manly, anti-social behaviour being the criterion for acceptance in a peer group, a mother feeling needed by her unassertive daughter. It is therefore important to check out how the client thinks others would respond to changes in his behaviour and how he feels about this.

In some cases it may be necessary to spend time before or during training exploring this area in order that the positive changes brought out by training will not be negated in the home environment (see section 6.4).

At this stage the trainer can put the information obtained from the interview together with that obtained by other assessment procedures (e.g. following sections) and can formulate and feedback to the client what he sees the difficulty, checking out the accuracy of his perceptions and understanding. The trainer will, by this stage, have a reasonably good idea as to whether or not social skills training is suitable for the particular client and (possibly depending on the situation and resources available) whether individual or group training would be more appropriate (see Section 5.1). If training is not considered appropriate, the individual should be informed of this (not that he is not suitable for training), the reasons given, and if the interviewer is in the position to do so, alternative arrangements could be discussed, e.g. it is possible that systematic desensitization would be more appropriate than social skills training for social anxiety.

If social skills training is considered suitable, the interviewer should give the client some information about the training. At this stage it may not be necessary or desirable to go into great detail, but just to give an outline of the training in terms of length and number of sessions, whether it is to be in a group or not, and that it will involve active participation. Homework assignments can be mentioned at this stage but detailed preparation of the client can take place at a later stage (see Sections 4.6 and 6.1).

The trainer can then find out whether or not the client is interested in taking part in a social skills training programme and any questions can be answered. If the client does not think that training would be helpful and is not for him, then the interviewer should try to find out the reasons for it. Is it because he is worried about going into a group? Most people are. Reassurance can be given that other members all have problems in getting on with people and probably feel the same way. Alternatively, a
period of individual training may help. Is it because, when it comes down
to it, he really doesn't want to make the changes? If this is the case, then
social skills training as such probably won't help him. Is it because it all
sounds like going back to school and a bit silly? The trainer probably has
not done a good job of giving the rationale and explanation of training.
He should try again.

If the client is undecided and would like more time to digest the
information and possibly discuss it with family members, another
appointment can be made.

3.4.2 Observation in the natural setting

Information can be obtained about the client's behaviour in his own
environment by observing him in actual social interactions. This has to
be done carefully and unobtrusively in order not to disrupt or change the
behaviour being observed. It can be a useful method for collecting
information particularly with clients who have difficulty reporting on
their own behaviour.

Observation can be done formally or informally, by the trainer or by
parents, friends or other staff members. Informal observation involves
being with the client in his natural setting and reporting on how he
behaves in a variety of situations. If the client is living at home, for
example, a relative can be asked to observe and report on how the client
copes with visitors, answering the telephone, shopping, making requests,
general conversation, etc. As with the assessment interview, behavioural
detail should be sought, i.e. what did the person say in the situation, how
did he behave, his posture, eye contact, facial expression. In a residential
setting, where the institution forms the ‘home’ environment, the
behaviour can similarly be observed by the trainer or other members of
staff. For example, they could be asked to observe and report on who the
client talks to. Does he get on better with members of staff or with other
patients. Does he initiate any interactions. Does he make requests, stand
up for himself, speak only when spoken to. Does he speak at all. What he
does at meal-times and in other departments such as occupational
therapy. What he does when listening to others.

This type of informal observation cannot be an objective assessment but
only an account of how a person sees the other’s behaviour, and this
must be taken into consideration. The procedure can be improved by the
use of observation scales designed to assess specific behaviours. This
pre formal observation procedure requires that the observers be trained the use of the scales so that more accurate information can be tained. A check list or rating scale can be devised that should specify the behaviours which are to be observed. For example, a check list might be made up of a list of behaviours such as making a greeting, opening a conversation, listening, making requests, etc. which the observer ticks each time the client performs that particular response during a given period of time. In this way the trainer can collect information on how frequently certain behaviours occur. Rating scales can also be used which will give a subjective account of the quality of a response in terms of its appropriateness. In the example given, the observer is asked to rate particular behaviours of the client in a number of specified situations, giving a rating of between 1 and 5 for appropriateness and indicating the frequency of occurrence of other behaviours. These scores can provide a useful means of assessing change over time.

**SAMPLES OF RATING SCALES**

<table>
<thead>
<tr>
<th>Verbal behaviour (qualitative) — at the dinner table</th>
<th>appropriate</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>inappropriate</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ye contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>facial expression</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>posture</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>voice tone</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>voice volume</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbal behaviour (quantitative) — at the dinner table</th>
<th>frequency of behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>tarts conversation</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>laintains conversation</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>akes requests</td>
<td>✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>istens</td>
<td>✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>sks questions</td>
<td>✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
</tbody>
</table>
## EXAMPLES OF SELF-REPORT MEASURES

<table>
<thead>
<tr>
<th>Author</th>
<th>Scale</th>
<th>Behaviour measured</th>
<th>Population for whom it was designed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bryant and Trower (1974)</td>
<td>Social Situations Questionnaire</td>
<td>Difficulty with a wide range of social situations</td>
<td>Adult college students</td>
</tr>
<tr>
<td>Watson and Friend (1969)</td>
<td>Social Avoidance and Distress Scale (SAD)</td>
<td>Distress, discomfort and anxiety in a wide variety of social situations</td>
<td>Adult college students</td>
</tr>
<tr>
<td></td>
<td>Fear of Negative Evaluation (FNE)</td>
<td>Apprehension about social disapproval from others</td>
<td></td>
</tr>
<tr>
<td>Goldsmith and McFall (1975)</td>
<td>Interpersonal Situation Inventory</td>
<td>Difficulty with a range of interpersonal situations</td>
<td>Male adult psychiatric patients</td>
</tr>
<tr>
<td>Rathus (1973)</td>
<td>Rathus Assertive Schedule</td>
<td>Assertive behaviour</td>
<td>Adult college students</td>
</tr>
<tr>
<td>Wolpe and Lazarus (1966)</td>
<td>Wolpe and Lazarus Assertiveness Scale</td>
<td>Assertive behaviour</td>
<td>Adult clinical population</td>
</tr>
<tr>
<td>Gambrill and Richey (1975)</td>
<td>Assertion Inventory</td>
<td>Assertive behaviour</td>
<td>Adult college students</td>
</tr>
<tr>
<td>Twentyman and McFall (1975)</td>
<td>Survey of Heterosexual Interactions</td>
<td>Heterosexual behaviour in males</td>
<td>Adult college males</td>
</tr>
</tbody>
</table>
1.3 Self-report measures

Self-report measures can of course only be used with those clients who are able to report on their behaviour in social situations and should not be used as a major source of information. Scales vary enormously in their scope, some being concerned with specific aspects of social behaviour, such as assertion, and some being of a more general nature. However, with any self-report measure, it is not justified to assume that it will cover the problem areas of any individual client. Moreover, in answering questionnaires there is a tendency for people to present themselves in a more light. They will of course vary in the extent to which they are aware of their own behaviour in social situations and therefore the accuracy with which they can report it. If used carefully, however, they can aid in pinpointing broad problem areas which can then be defined more precisely in an assessment interview. They do have the advantage of being economical in time and can be scored objectively. Therefore they can be used to compare individual problems and the same individual over time thereby providing a useful assessment of change. The list presented here provides examples of some of the scales which have been developed largely for research purposes with specific populations. The reader should consult the original articles for details on the reliability and validity of these measures.

4.4 Assessment using role-played scenes

Role-play can be set up as part of the assessment procedure. This can take the form of a standard social situation which the client is likely to counter, or be based on a particular situation which the client has identified as difficult. Details of this situation should be sought and appropriate props supplied (tables, chairs, etc.) and role-models briefed (Section 4.3). The client is instructed to behave as far as possible as he does in the real situation and at the end of the scene he should be asked how accurately his behaviour in role-play reflected his behaviour in the real situation. If not at all, then further information about the situation should be sought and the scene role-played again. Once again, check lists and rating scales can be used to rate specific behaviours. Role-play can provide the trainer with behavioural information about which the client may be unaware or on which he is unable to report with accuracy. Never, it should be noted that this form of assessment can only provide a rough estimate of what actually happens and should be used alongside the client's verbal report of that situation.

One or any combination of these procedures can be used for an initial
assessment of the individual's difficulties and provide the basic information for goal-setting and programme design. They can also be used to monitor the progress of the individual during the training so that modifications to the training programme can be made if necessary.

3.5 GOAL-SETTING

The process of goal-setting would normally be done at a second interview with the client, once the information on which this is to be based is available. Prior to this, however, the training methods should be described to the client, and his agreement to participate in training obtained. Even in cases where little direct information has been obtained from the client himself, as with chronic institutionalized patients, it is important that he is consulted and informed about training, e.g. 'I've noticed that on the ward you always seem willing to answer when someone speaks to you or asks you something but I've never seen you start a conversation with anyone. We are going to run a course/training programme here and its aim is to help to get people talking to each other a bit more....'

The client should formulate his own goals aided by the trainer feeding back the assessment information to him. The goals should be realistic, i.e. within the client's capabilities, relevant to the individual's everyday situations and should be formulated in behavioural rather than general terms, e.g.

not 'To be happier at work', but 'To be able to chat to the other girls in the office and to allocate the work to them. To go into the boss's office confidently and take his work.'

not 'To be one of the gang' but 'To be able to make suggestions about what the gang should do and to say "no I don't want to" when that is the case.'

not 'To be more confident', but 'To enter a pub looking confident and to chat with the people at the bar.'

It is also necessary to list the goals in order of difficulty, as perceived by the client, so that programmes can be designed to proceed in stages from the easy to the more difficult areas.

All the general statements (I want to be happy, etc.) are of little or no help in designing social skills training programmes. However, they are undoubtedly very real goals for the client and may ultimately form the
criterion by which the client judges the effectiveness or otherwise of training. None the less goals need to be detailed, specific and behavioural so that exercises can be designed to enable the client to aim his specified goals, thereby achieving his more general objective.

The degree to which a client can articulate his own goals will of course vary. Where the client has been in hospital or prison for a number of years he may, because of the process of institutionalization and probably having adopted the limited role of patient or prisoner, find it difficult to think in terms of goals and change. In this case the trainer might have to send to the client a range of possibilities and suggested goals from which to choose, depending upon the overall aim of the training, e.g. rehabilitation into the community, job finding, dealing with authority, the particular difficulties of the individual concerned. Here the trainer must be guided by what would be realistic for his client given his situations, particular interests, etc. Where a limited number of goals have initially been set by the therapist, it is possible that with the client will become aware of a wider range of possibilities for change and develop the skills to set his own goals.

In some instances the client’s goals may conflict with those of the trainer. For example, the goals of a young offender might be to re-establish himself with his peer group of similar offenders by taking part in their activities. Where this is the case it would be advisable for the therapist to raise the issue with the client and possibly come to some agreement. If the client were able to communicate more effectively orally, his choice of acquaintances might be less restricted and he could have a wider population from whom to choose his associates. The rapist must be free to disagree with the values held by the client but, at the same time, he should avoid imposing his own goals on the client, though he will of course be influenced by the values he holds.

At this stage the trainer will have:

a) detailed information about the client's problems, the social situations and relationships he has difficulty with and his specific behavioural deficits, verbal and non-verbal

b) a list of the client’s goals or behaviours he wishes to achieve, in order of difficulty.

Information provides the essential material for programme design (Chapter 5).
3.6 EVALUATION OF SOCIAL SKILLS TRAINING PROGRAMMES

Assessment procedures can be administered before, during and after training to evaluate the effectiveness of a particular training programme. Of course, without the use of proper controls any changes reported or observed cannot be attributed to the training programme alone but may be due to the increased attention given or simply the passage of time. However, a simple pre and post assessment may give some indication to the trainer of the changes taking place.

In evaluating training it is necessary to predict what changes are expected in terms of the specific goals set for the individual and possibly the more minute aspects of his behaviour, e.g. increased use of eye contact. These can be assessed by using the procedures discussed, particularly role-play, rating scales, self-report measures and observation in the natural setting. There is now a large body of research literature and all these methods have been reported (Bellack and Hersen, 1980).

A thorough examination of the social skills method would involve a systematic research approach. There are many possible experimental designs but the most frequently used involve comparisons of groups receiving a variety of types of training or treatment or a comparison of a social skills group with a no-treatment or pseudo-training group (Trower, Yardly, Bryant and Shaw, 1978; Linehan, Goldfried and Goldfried, 1979). There are many such studies and that of Goldsmith and McFall (1975) provides an example. They assigned 36 male psychiatric patients to three groups: interpersonal skills training, pseudo-therapy control, and assessment-only control. For assessment before and after training they used a combination of self-report rating scales examining the client’s expectations and degree of difficulty with a number of social situations. Post-training they also used two role-play assessments, in one the client had to respond to a variety of pre-selected interpersonal situations and in the other, hold a conversation with and make a request of a stranger.

Alternatively, single case studies have been conducted which involve training specified behaviours which are compared for change with behaviours that have not been trained (Rahaim, Lefebvre and Jenkins, 1980).

Marzillier and Winter (1978) used a multiple base line design in their single case studies of four psychiatric patients. They used a variety of procedures for assessment based on interviews, rating scales and role-
ay, and individual target behaviours were selected for training on the sis of a videotaped recording of a conversation with the therapist. This versation was repeated at various intervals throughout training in der to monitor changes in target behaviours. One target behaviour was lected and trained and the effects of training assessed, a second haviour was added, etc. until all target behaviours had been trained. is allowed for a schematic training of specified target behaviours in a quential and cumulative fashion and a continuous evaluation of ange.

ving established that change takes place, it is also important toablish if this change is maintained over time. This would necessitate llowing up all subjects and reassessing them at intervals. Most studies 3 inadequate in this respect having no follow up or following up, only a short period after completion of treatment. Treatment studies that ve included longer-term follow up of a year or more have shown that erences between treatment and no-treatment groups can disappear an, Staples, Cristol, Yorkston and Whipple, 1975). Long-term follow data will also provide us with useful information on whether ‘booster’ 
inling is necessary.

order for social skills training to be considered effective, the haviour learned in the training sessions must be shown to generalize to person’s interactions in real life situations. One might also expect reralization of learning to take place in other situations and with other ople. Generalization across situations can be measured by including the assessment situations for which no specific training has been given oldsmith and McFall, 1975). Generalization across people can be asured by including a second role-model with whom the client has d no contact at the pre-training assessment (Edelstein and Eisler, 1976).

eralization to the real environment is more difficult to assess and usually dependent upon the report of the client and of others with om he has contact. Unobtrusive observation of the client in his own ivering would be most effective. However, because of the ethical d practical difficulties in implementing this type of procedure most searchers have confined themselves to naturalistic observation in the spital setting, using pre and post ratings of specified behaviours hepherd, 1977, 1978).

though it is expected that social skills training will bring about anges in social behaviour, it is important to assess any related changes
that might be taking place in other aspects of the person's functioning: his cognitions, attitudes, values, problem behaviour, etc. For example, studies have looked at self-concept (Marzillier and Winter, 1978; Percell, Berwick and Beigel, 1974), at social anxiety (Marzillier, Lambert and Kellett, 1976; Shepherd, 1977, 1978), at clinical symptoms (Trower, Yardley, Bryant and Shaw, 1978; Wilkinson, 1980), and at cognitions (Rahaim, Lefebvre and Jenkins, 1980). The behaviours and characteristics other than social behaviour which might be selected for evaluation will depend on the client population, purpose of training and theoretical interests of the trainer involved. In a school-age child, for example, it might be important to assess general classroom behaviour and academic performance if this was judged to be affected by the social skill deficit of the child.

Continuous assessment and evaluation before and after training is an important part of social skills training. It enables the trainer to monitor the progress of his clients, to develop more appropriate training programmes, and to assess his particular training methods.

This chapter has been concerned with the various ways of assessing social skill both for the purpose of identifying an individual's problems and for designing and evaluating training programmes. Assessment is fundamental to the process of social skills training and its importance cannot be overstated.
4 Basic Training Methods

4.1 Instruction
4.2 Modelling
4.3 Behavioural rehearsal (role-play)
4.4 Warm-up exercises
4.5 Reinforcement
4.5.1 Feedback
4.5.2 Rewards
4.6 Homework assignments
There are a variety of social skills training programmes available for particular populations, problems or individuals. The basic training methods, however, will be similar whatever type of programme is chosen. The procedures used in teaching social skill resembles those used in the teaching of any other skill. The overall task is broken down into smaller stages or component parts and these are taught systematically, step by step, starting with the simple and working toward the more complex. For each 'step' explanations and instructions are given (sometimes referred to as coaching) and this is usually followed by a demonstration (modelling). The trainee then practises the skill himself (behavioural rehearsal or role-play), feedback and encouragement (which can act as reinforcement) are given, and, if necessary, corrections are made. Finally, the newly acquired skill is practised in the home environment (homework assignments or practice).

A session would therefore typically consist of instruction, modelling, role-play, feedback and homework setting with the opportunity for clients to report on homework from the previous session. The order may vary, e.g. modelling could come before, or as part of, instruction, or a single session might cover two 'steps' and two sets of instruction and exercises, etc. would be included.

4.1 INSTRUCTION

Each session will have been designed around a particular theme (one of the 'steps') which might be a non-verbal or verbal behaviour, e.g. 'eye contact' or 'opening a conversation' or a specific social situation such as 'joining a group in the canteen at work'. The trainer drawing on his knowledge from sources, such as those given in Chapter 2, and his own and others' experience describes the behaviours to be taught in detail and explains their importance and use in social interaction, e.g. ‘Looking at a person who is talking to you is an important way of showing that you are listening. It is extremely difficult to carry on talking if someone is looking away.’ If the theme of a session is a particular situation, then the trainer will discuss this in terms of the appropriate behaviours involved and the social norms in that situation, e.g. ‘When joining a group it is usual to look around the group as you approach, make eye contact with one of the members and make a greeting either by a nod or smile.’

It is at this stage in training that most of the cognitive aspects of social skill are covered. Instructions are given not only on the responses as
which, but on the observation of the behaviours and responses of others and what they may mean in the situation. Alternative strategies and their consequences can also be explored, e.g. ‘When you’re talking to someone who you know usually has good eye contact and this time they’re looking down at the floor, what do you think this can tell you?’ ‘What could you do in these circumstances?’ ‘What would probably be the result of doing that?’ This can either take the form of question and answer as above, or be a direct talk given by the trainer. A handout, laying out the major points of the session, can be prepared in advance. This can be taken away by the client at the end of the session and used as a reminder.

It is extremely important that clear instructions are given and that they are presented using examples related to the client’s own situations in a language which the client can readily understand and make sense of. Instructions are given not only to provide clients with information about social behaviour but to provide a background and rationale for the subsequent exercises and role-plays. The client should know what he is expected to do in the role-play before it takes place.

2 MODELLING

Modelling is a method of demonstrating appropriate behaviour. Typically, before the client takes part in the role-play, the trainer, another member of staff brought in for this purpose, or a group member (in a group situation) gives examples of competent responses in the situation. This may involve enacting the whole role-play or just a part of it. Prepared videotapes and photographs can also be used for this purpose. It has been found that modelling is more effective when the models are of a similar age and of the same sex as the observer and when the model’s behaviour is closer to that of the observer rather than highly competent or more extreme (Bandura, Grusec and Menlove, 1967).

It is important that the client does not interpret the modelled behaviour as the ‘correct’ way to behave, but as one of approaching a particular situation. An alternative to using modelling before the client tries it out himself (behaviour rehearsal) is to model the behaviour following the rehearsal if the client is unable to role-play the behaviour with verbal instructions alone. Modelling can also be included as part of the instructions.
Modelling has been demonstrated to be particularly useful in working with a schizophrenic population and in one study (Eisler, Blanchard, Fitts and Williams, 1978) it was found to be an essential ingredient of a training programme for improving the social skill of these clients.

4.3 BEHAVIOURAL REHEARSAL (ROLE-PLAY)

Behavioural rehearsal forms the core component of social skills training. The client, having received verbal instructions and possibly having seen the behaviour demonstrated by a role-model, enacts brief scenes which simulate real-life situations which he might encounter in his own environment. He is required to be himself in those situations, but to vary his usual set of responses and to try out new behaviours. In this way the client is enabled either to acquire new behaviours to add to his behavioural repertoire (McFall and Marston, 1970) or to increase the possibility of existing responses occurring that have been inhibited, for example by anxiety (Wolpe, 1958).

The trainer ‘stage manages’ the role-play, organizing any ‘props’ necessary for setting the scene, e.g. chairs and a desk. He might play the role of the other involved in the scene himself or, if in a group, direct a group member to play the other role or roles. This has the added benefit of providing an opportunity for members to try out completely different behaviours. Before the role-play is enacted in front of a group, members can be given the opportunity to practise for a few minutes in pairs, or threes, etc. (depending on the situation). This enables the trainer to go round giving encouragement and making suggestions before it is performed ‘in public’.

When all are ready for the role-play to begin the trainer should remind the other members which specific behaviours are being trained in the session so these can be observed during the role-play and subsequent feedback be given. The role-play can now proceed.

During the role-play the client can be ‘prompted’ by the trainer. This can be done non-verbally, the trainer indicating through gesture to the client that he could, for example, speak a little louder, or verbal promptings can be given; ‘Speak louder’. This method should only be employed when the client gets into difficulties.
the client is unable to complete the rehearsal satisfactorily then the
role-played scene should be broken down into smaller stages and
hearsed step by step. It could also be broken down into non-verbal and
verbal behaviour and practised non-verbally first before adding the
ords.

there may be occasions when a role-play will be enacted without prior
anning, such as when a client unexpectedly has a job interview the
llowing week (Section 6.9) or in programmes which allow time for
vidual work (Sections 7.1 and 7.4). Here the trainer obtains
formation from the client about the situation and the other people
olved in it, which he then uses to brief other members of the group on
roles they have to play. When the situation has occurred before, it
be useful to ask the client to behave as he did or usually does. In this
ay the trainer can see for himself how the person behaves and what
ppens rather than relying on the individual’s verbal account. (If this is
one it is always necessary to check with the client how accurately his
aviour represented that which occurs in the real situation.)
struction and modelling can take place at this stage and the client can
 out new behaviours. The people playing the other roles are asked to
pond in role to the new behaviour.

4 WARM-UP EXERCISES

nter and Wilkinson (1978) have suggested the use of warm-up exercises
dition and usually prior to, role-play. These are designed to exercise
id practise, sometimes in an over-exaggerated way, the various aspects
aviour being trained in the session but, unlike role-play, they are
erally related to actual situations. For example, a warm-up
ercise on tone of voice might be to repeat a nursery rhyme happily,
ily, enthusiastically, etc. or to read a newspaper cutting in an
ropriate tone of voice but slightly exaggerated. This might be
owed by a role-play on talking enthusiastically about an area of
erest, etc. If warm-up exercises are included it is most important that
rationale for their use is given, that the connection with the role-play
punted out, and that they are presented in such a way that the clients
ceive them as light-hearted and fun rather than silly and
arrassing.
4.5 REINFORCEMENT

After the client has obtained information about a particular skill through verbal instruction and modelling and has rehearsed the desired behaviour, his skills are shaped through reinforcement. This takes the form of feedback, which provides the client with information about his behaviour, and reward, which usually is praise or some appropriate incentive. The systematic use of feedback and reward shape the behaviour and increase the likelihood of it occurring again.

4.5.1 Feedback

Knowledge of results is essential to the development and improvement of a skill (Annett, 1969). Feedback can be given by the trainer, by other members of the group, or through audio or visual playback (McFall and Twentyman, 1973). If feedback is given by other group members they should be trained in advance to be positive and to present it in such a way as to be helpful to the client. The following guidelines might be useful.

(a) Behaviours for feedback should be specified in advance of the role-play so that the observers can focus on the relevant responses.

(b) Feedback should focus on the behaviour rather than on the person.

(c) Feedback should be detailed, specific and concentrate on those behaviours which have been taught either during the session or at previous sessions.

(d) Feedback on no more than three behaviours should be given at any one time since it is extremely difficult both to observe and report on a larger number.

(e) Feedback should be given directly to the individual, e.g. 'It was good the way you looked at her,' and not 'It was good the way she looked at her.'

(f) Feedback should concentrate on the positive with suggestions for improvement and change if necessary, e.g. 'I thought it was good the way you came into the room and looked directly at him. I think it would have been even better if you had walked straight in without hesitating at the doorway.' Not 'It was a pity you were so hesitant at the doorway.'

(g) It should be emphasized that feedback is not an objective judgement of the individual, but a person's subjective impression which may vary from person to person.

(h) It should be remembered, particularly by the therapist, that the person giving the feedback is doing so in the light of his own norms and culture, which might differ from those of the client.
The process of giving feedback can also be of benefit. It gives the client the opportunity to practise speaking directly to another and helps the members of a group to concentrate on the person working, eping them involved with the group and increasing the probability of observational learning of those behaviours which are successful (and consequently rewarded).

Video playback is used the client should, first of all, be given the opportunity to comment on his performance and the same rules of feedback should apply. Video playback, however, should be used with caution. While it can provide a source of motivation and incentive, it can so be disruptive and threatening to some individuals.

1.2 Rewards

Social rewards are effective reinforcers for most people (Agras, 1972) and social skills training this is done by means of praise and encouragement. The beneficial effect of this is greatest when given mediately after the behavioural rehearsal. As well as verbal approval (raise), it can be given by facial expression, nods, applause, pats on the cheek, etc. Each time the client takes part in a role-play, the trainer has the opportunity to strengthen desirable behaviour with praise.

Other types of rewards can also be used but they must obviously be appropriate to the population in question, e.g. pennies for children when they have approximated the target behaviour (Twentyman and Martin, 1978), small monetary payoffs to reinforce ward social interactions of chronic psychiatric patients (Doty, 1975), stars as a reward for attendance at a mentally handicapped group (see Section 7.2).

**Homework Assignments**

Homework assignments provide an opportunity for the client to try out newly learned behaviours in real-life conditions which are likely to produce rewarding consequences. This will enable the skills acquired in the training session to be transferred to the client's own environment (Bower, Bryant and Argyle, 1978). The importance of practising the newly learned behaviours outside sessions is stressed at the assessment age and throughout the training. Even if the client is doing well in training sessions it is of little or no value if his behaviour in his own environment remains unchanged.
Homework assignments typically consist of behaviours corresponding to those taught in the training session which the client performs between sessions and on which he reports back in the subsequent session. For example, this might involve getting him to practise sitting in a relaxed and confident posture at least once every day, asking directions from a stranger, or joining in a conversation at work. The specific assignment will obviously depend on the type of client population and the type of situations they are likely to meet. If possible, the homework tasks should be identified by the client and the goals stated clearly. It is necessary to check carefully that the client is likely to encounter or can put himself in the situation and therefore is able to carry out his assignment. It is important that the client succeeds in his assignment, although it is advisable to warn him that, through no fault of his own, things can go wrong, e.g. he smiles at a neighbour who happens to be preoccupied, doesn’t notice it and ignores him.

It can be useful for homework assignments to be written down, on a card or in a notebook. The client can then be asked to keep a record of his performance indicating what happened, when he practised the task, his success, degree of comfort or particular difficulties experienced, etc. Recording homework assignments acts to remind the client of his tasks, enables him to monitor his own behaviour and provides valuable information on which the trainer can give feedback at the subsequent session. The recording of homework with feedback can act as a powerful incentive to improvement (see example of use in Section 7.3).

Typically the client reports back at the following session on how he got on with his assignments. The trainer should obtain details of what exactly happened and the client be rewarded with appropriate praise for attempting his homework, whether he succeeded or not. If things went wrong, it is important that the trainer finds out exactly what happened and, if necessary, further training can take place.

Thinking up appropriate homework assignments for those residing in institutions may be more taxing on the imagination of the trainer and it will be necessary to obtain the co-operation of other members of staff in this, both to create opportunities for practice and to guide and reinforce behaviour. Similarly, when working with children the parents can be trained to participate in the homework assignments.

To ensure generalization of behaviour learned in sessions, it may be useful to have sessions in a variety of situations, e.g. youth clubs, the
ffee bar, etc. or to create a situation where both the trainers and other group members can reinforce each other in real-life settings, e.g. out for a meal or at a disco. It would be useful for this type of practice to take place at a later stage of training when the basic skills have been acquired.

This section has provided an outline of the methods used in social skills training. The content of any programmes, i.e. what is taught (see chapter 2) and the length, frequency and number of sessions, etc. (see section 5.3) will depend very much on the type of client and the situation in which training takes place. The methods of training employed, however, will be similar whatever the population or setting.
5 Designing Social Skills Training Programmes

5.1 Group or one-to-one training
5.2 Individualized or standardized programmes
5.3 Designing training programmes
  5.3.1 Content and plan of training
  5.3.2 Length, number and frequency of sessions
  5.3.3 Designing each session
  5.3.4 Additional exercises
5.4 Group composition
5.5 Social skills training within a broader therapeutic or training context
Although a number of programmes exist which have been designed for a variety of purposes and types of clients, it is preferable that trainers design their own programmes to meet the particular needs of their own clients. Detailed material from careful assessment of the clients' problems is essential in designing programmes (see Chapter 3). Information will have been obtained from the client himself, possibly also from relatives, friends or other professionals and from observation of the client at interview and, if he is in an institutionalized setting, from his day-to-day functioning. Finally, goals for training will have been set and the client will have some idea of what is expected of him. A number of decisions have then to be made before the programme can be designed. Is the client to be trained in a one-to-one or group setting? Is the programme to be designed specifically for him (individualized), or is it to be designed as a more general training course (standardized)?

5.1 GROUP OR ONE-TO-ONE TRAINING

Social skills training can be used in a one-to-one or group setting. Individual training allows concentration on the client's particular problems and may be desirable or necessary where the client is highly anxious and would find it difficult to join a group. However, group training does have a number of advantages, perhaps the most important being that the group offers a ready-made social situation which is a 'real' situation in itself. A group supplies a number of different types of people necessary for creating role-plays and for giving a greater range of feedback. The members of a group also provide a variety of models, thereby helping to dispel any idea that the therapist's modelling is the 'right' way and vicarious learning has been shown to be more effective when the models have characteristics in common with the observer (Bandura, Grusec and Menlove, 1967).

A group also provides its members with a number of people with whom they can meet and practise their newly acquired skills and can provide a supportive environment in which clients, by being with a group of people in a similar position to themselves, feel less intimidated. If there are members in the group who are further advanced in training and who report and show improvement, they can quickly help develop positive expectations in new members.

Although there are strong arguments for group training, a particular client might benefit from an initial period of one-to-one training and
possibly individual sessions running concurrently with group training. In practice, the choice between one-to-one and group training frequently depends on the type of setting and the resources available. In some settings there might not be sufficient clients to form a group so one-to-one training would be necessary. In others, group training may be chosen on the basis of expediency to make more economical use of therapists' time. In both cases, however, provisions should be made to meet the needs of the individual client, i.e. the person in one-to-one training should be given the opportunity to practise in a group and those in group training the opportunity, if necessary, of one-to-one sessions.

2 INDIVIDUALIZED OR STANDARDIZED PROGRAMMES

Training can be designed to meet the needs of a particular individual and organized around the specific difficulties experienced. Alternatively, it can take the form of a more general social skills training course for which the client has been previously selected. For either type of training, individual or standardized, the methods employed are similar (instruction, modelling, role-play, etc.).

The individualized training programme is planned around the specific goals of the client and in each session he works on a particular aspect of his problems building up from the simple to the more complex behaviours and situations. This can be carried out in one-to-one training or in a group where each client in turn works on his own particular problem, with the other members of the group taking part in the exercises as appropriate. Such a group would be 'open' with clients joining as necessary or convenient and leaving on completion of their programmes.

The standardized programme takes the form of a set course and deals systematically with basic social skills, again building up from simple behaviours to more complex social routines. The content of any such programme would clearly depend on the type of population and purpose for which it is being designed. The needs of chronic psychiatric patients are obviously very different from those of young offenders. The programme may be designed to cover a range of social situations or confined to a specific area such as job interviews. Standardized programmes can be used in one-to-one training but are better suited to a training group. Assessment of potential clients for a standardized group is essential, but actual selection for the group might be left until after the programme has been designed.
The main advantages of standardized programmes are that once designed they can be modified and re-used, they are more easily managed than individualized programmes in group training, and trainee therapists can more readily be trained to carry out the routines. Also, a larger number of clients can be accommodated in standardized groups. However, since this type of training takes the form of a course it is necessary to run a ‘closed’ group which, whilst providing a safe environment for its members, is not always practicable in situations where there is a high turnover of clients, e.g. acute psychiatric admission wards. In this case an individualized programme would be more suitable. The main disadvantage of a standardized training programme is the possibility that it will not meet all the specific needs of the individuals involved.

In practice the two types of training are often combined; the first part of a programme being a general training, followed by individualized work in later sessions (Section 7.1). Material from a generalized training programme can also be adapted, if appropriate, for individualized training. As with deciding on group or one-to-one training, it is of course necessary to be sensitive to the specific requirements of each client.

5.3 DESIGNING TRAINING PROGRAMMES

While the stages and processes of designing both individualized and standardized programmes are the same, they have sufficient differences to warrant a separate discussion here. The reader is referred to the example (Figure 2) in this section of building up an individualized programme and to Section 7.1 for an example of a standardized training programme.

5.3.1 Content and plan of training

*Individualized programmes*

The client’s goals, stated in terms of the behaviour he wishes to achieve in certain situations, plus the information about his specific deficits gained at assessment, form the basic material around which the programme is designed. The programme will consist of a number of sessions and in order to plan these sessions the material from assessment is organized to form themes. These themes may be separate behaviours,
Training both within a session and over a number of sessions progresses step by step from simple to more difficult and complex behaviours. It is necessary, therefore, to order the themes according to difficulty and in terms of a logical and meaningful progression from one stage to the next. This may necessitate a detailed breakdown of particular themes into sequences or short scenes and each scene into its behavioural components. Having conversations at work may be a theme which can then be broken down into three stages of initiating, maintaining and ending conversations, each stage to be trained separately, one building upon the other. At each stage the trainer may concentrate on the specific behavioural deficits of a client in relation to that activity, e.g. eye contact or tone of voice.

Standardized programmes

The procedure for deciding on the content and themes of a standardized programme will vary depending on the purpose of training, i.e. whether it to be a general training in social skills (see Section 7.1) or social skills associated with a specific situation such as work (see Section 7.3), and the population for whom it is being designed. Where the clients are able to identify the situations in which they would like to develop competence, a standardized programme can be designed around those types of situations but could be more comprehensive and based not only on the deficits of particular individuals but on a wider range of situations and behaviour relevant to the population. With those clients less able to specify their training needs, the situations and themes would be identified by the trainers and others involved in the rehabilitation.

Working from the simple to the complex applies equally to the standardized programmes. Some programmes start with non-verbal behaviour and build up to verbal behaviour before progressing to quite complex situations (see Section 7.1). Others take simple situations dealing with verbal and non-verbal aspects together and gradually build up to more difficult interactions (see Section 7.2). With more specific programmes such as those for aggression management or job interviews, the order of sessions will fall into a more natural sequence in terms of the sequence of actions or events within those particular situations.
BUILDING UP AN INDIVIDUALIZED PROGRAMME

Background information

Mary West is 39, married with two teenage sons. She works in an office where she is responsible for the supervision of six girls. She has always been a shy person, finding it difficult to make friends. Three years ago she moved away from an area near her parents to a new housing estate some miles away. This coincided with her husband getting promotion at work and consequently having greater social demands made on her. Mary has found it increasingly difficult to meet people, and six months ago went to her GP complaining of depression. She showed little improvement with anti-depressant medication and was eventually referred for assessment with a view to social skills training.

Summary from assessment interview

Self-report of difficulties in social situations

Mrs West reported that she has no energy and dreads going to work where she feels taken advantage of by the juniors. She finds it difficult to allocate work to them and they tend to take the interesting jobs themselves, leaving her with the more mundane tasks. She dreads entering the boss's office, particularly if he is on the phone when she doesn't know whether to enter or come back later. She finds coffee breaks difficult and feels that she has no 'small talk'. She is terrified of going to the social functions which are a necessary part of her husband's job. She feels she has nothing to say for herself, her mind goes 'blank'. She can just about answer questions, but she does so as briefly as possible. She finds it impossible to start or continue a conversation and will avoid social contact if she can. She also finds it difficult to initiate any kind of relationships in her new neighbourhood, or to respond when a neighbour makes friendly overtures.
Observations at interview

Mrs West answered questions as briefly as possible and her tone of voice was flat and monotonous. She sat slumped in the chair but would occasionally sit forward on the edge and wring her hands. Her face was, for most of the time, expressionless and her eye contact poor. She was somewhat dowdily dressed but well groomed.

Training goals (in order of difficulty)

(a) To enter the boss's office confidently
(b) To allocate work in the office, give orders and monitor progress of juniors.
(c) To be able to make friendly greetings and chat to neighbours in the street, the girls at work, etc.
(d) To be able to maintain a conversation, including initiating and responding to others both at work and at her husband's social functions.

Behavioural deficits

(a) Posture
(b) Facial expression
(c) Eye contact
(d) Vocal cues (particularly tone and volume)
(e) Giving orders
(f) Conversation openings
(g) Maintaining conversation
Outline of content of programme

This programme has been designed for six weekly sessions of about 30 minutes to be carried out in a one-to-one situation.

**Session 1:**
*Situation* — Entering the boss's office, waiting a moment to see if he wishes her to enter or return later, walking across the room and sitting down.

*Behaviours* — Posture — standing, walking, sitting (confidently).

**Session 2:**
*Situation* — Allocation of work, monitoring progress, giving orders.

*Behaviours* — Tone of voice (firm), eye contact, making requests (without apology).

**Session 3:**
*Situation* — 1. Meeting a neighbour in the street.

2. Coming into the coffee room at work.

*Behaviours* — Facial expression (friendly), tone of voice (warm), conversation openings.

**Session 4:**
*Situation* — The coffee break at work.

*Behaviours* — Maintaining conversation — emphasis on listening, paying attention, making comments.

**Session 5:**
*Situation* — The coffee break at work.

*Behaviours* — Maintaining conversation — emphasis on asking questions, self-disclosure, taking turns.

**Session 6:**
*Situation* — Social function — joining a group, making conversation for a few minutes, moving on to another group.

*Behaviours* — Observing and assessing appropriate point of entry, joining in the conversation, ending and leaving the group.

Figure 2 [continued]
Detailed plan of session 1: Entering the boss's office

Welcome to the client. Recap from previous meeting on aims, length, frequency of sessions, what is expected in terms of homework and why it is important. (In subsequent sessions it is useful to start with homework feedback.)

Instruction

General introduction to non-verbal behaviour in both sending and receiving messages including why it is important in social interactions. Detailed explanation of posture — standing, walking and sitting relating it to the theme of the session, i.e. entering the boss's office confidently and sitting down. Also mention importance of interpreting non-verbal cues from boss (probably from facial expression or gesture) as signals as to whether to enter or return later.

Modelling

Trainer demonstrates the total sequence of knocking, entering, waiting, proceeding to chair and finally sitting down.

Role-play Scene: the boss's office

Part 1 Knocking on door, entering, looking at boss, waiting. Feedback with replay, modelling and prompting as necessary.

Part 2 Walking across the room in confident manner. Feedback with replay, modelling and prompting as necessary.

Part 3 Seated posture (confident yet relaxed). Feedback with replay, modelling and prompting as necessary.

Part 4 The complete sequence. Feedback with replay, modelling and prompting as necessary.

Homework assignments

1. Practise sequence each morning at work.
2. Practise relaxed and confident seated posture in different chairs twice a day.
5.3.2 Length, number and frequency of sessions

*Individualized programmes*

The length of each session will depend on whether the training is on an individual basis or whether the individual is part of a group, all of whose members have their own programmes, the needs of the client and the time available to the therapist. Generally speaking, it is better to cover too little than too much. However, the pace should be such that the client does not become bored or overloaded. This can be assessed during the course of training and adjustments made as necessary. In individual training anything under half an hour would probably be too short or over an hour too long. For group work the type of client is more likely to determine the length of session. For those clients who might have difficulty in concentrating, e.g. the mentally handicapped or schizophrenic person, shorter sessions of about 30-45 minutes would be advisable, whereas with out-patients or adult offenders the sessions could last up to 2 hours. The time allotted to each client within this will depend on the number in the group and whether each client is to work on his own problem in each session.

The number of sessions required will be related to the length of the sessions and the degree of difficulty of the client, varying from three to thirty or more. One advantage of group individualized training over a standard package is that one person may need only three or four sessions, whereas another may benefit from ten or twelve and both can be included in the one group.

The frequency of sessions again will vary with the type of client population and length of session. Some clients will require short but frequent sessions two or three times a week in order to reinforce newly learned behaviours and to ensure that they are not forgotten. Others will benefit from longer less-frequent sessions with sufficient time between sessions for the client to carry out his homework assignments and promote generalization to the natural setting.

*Standardized programmes*

As with the above, the number, length and frequency of sessions will depend upon the type of client population. In some cases the situation
right determine the number of sessions, e.g. the clients might only be available for ten weeks, or a set length of time be set aside from a more general rehabilitation programme for social skills training. The length of training may vary enormously. With a fairly able population (e.g. adult offenders, out-patients) about twelve sessions is a reasonable number, while with a schizophrenic population, more sessions are advisable. Very positive results have been reported from an extremely intensive training programme which included daily social skills training over a number of weeks (Wallace, 1980; Wallace, Nelson, Liberman, Aitchison, Lukoff, Leder and Ferris, 1980).

3.3 Designing each session

Individualized programmes

Having decided on the content or theme, order, number, length and frequency of sessions, role-play (and warm-up) exercises based on the material selected for each session can be devised and the instruction and modelling components of training worked out in detail (see Chapter 4). The exercises will be concerned with a particular individual's problem, which may be common to several individuals in a group. Role-play scenes should simulate situations or types of situation which the client might meet in his own environment, and situations with which he is experiencing difficulty (see Section 4.3). Behaviour for practice and feedback should be identified. Instruction should be pitched at a level appropriate to the population in training and should include rationale, explanation and directions (see Section 4.1). Modelling, if it is to be carried out by the therapist, should be practised prior to the session (see Section 4.2). Homework assignments should also be worked out at this stage (see Section 4.6). In designing an individualized programme to be carried out in a group, some of the exercises, particularly warm-ups, can be carried out by the whole group.

Standardized programmes

The same procedures as for individualized programmes are used except that the exercises will usually be designed around a theme selected for the session rather than an individual's problem. The theme might be some aspect of social behaviour such as eye gaze or a common social situation such as dealing with the boss at work. However, these themes
should be continually related to the situations and lives of the members of the group, and role-play exercises should be designed to be appropriate both to the theme of the session and the clients for whom the programme is designed.

5.3.4 Additional exercises

The above guidelines for designing individualized and standardized programmes give the essential ingredients of the sessions to which can be added a variety of elements to help the individual and facilitate group cohesiveness, interaction and support. For example, one way of starting each session off might be for each member to say their name and something positive which they have done or has happened since the previous session (see Sections 6.8 and 7.1). This ensures that all the group members contribute to the session from the start and that the group starts on a positive note.

Warm-up exercises related to the theme of the session can also be included in the programme although these are probably more successful when used in group rather than one-to-one training (see Sections 4.4 and 7.1).

Games which may or may not be related to the content of the session can be included, if appropriate, but this will largely depend on the population for whom the programme is being designed (Pfeiffer and Jones, 1979). Games are one way of ‘teaching’ people to have fun and let go. Also, people will behave within the context of a game in a way that they would find difficult if presented with an exercise, e.g. raising the volume of their voice. It is advisable for the therapist to be clear why he is including these and to present the rationale to his clients (see Section 7.2).

Some therapists have found the inclusion of anxiety management procedures useful when working with anxious clients (Goldfried, 1977). This can be carried out on an individual basis, or form part of group training.

5.4 GROUP COMPOSITION

With individualized training in which each member spends some time working on his particular difficulty, the group needs to be quite small,
between four and six members, to ensure that everybody has some time to work. With standardized programmes numbers can vary according to population and the number of therapists available. Less than six makes a small group and over fourteen probably too large. The type of client who needs more attention would probably benefit from a smaller group.

There is some discussion amongst trainers as to whether clients in a general social skills training group should be of similar age, intelligence, diagnosis, social group and with similar types of difficulties, or whether it's better to mix different types of clients in one group. There are no rules or this. Clients with some characteristics in common might feel that other group members have a better understanding of their difficulties and can be more supportive. However, some mix provides a variety of models, personnel for role-play and a greater range of feedback. In addition, the client can gain a better understanding of people from a wider sphere.

The question invariably arises for those working in a psychiatric setting is to the advisability of mixing people with different clinical diagnoses in one group. As the problems dealt with in a group are the social skills problems (and for some clients the presenting of psychiatric symptoms would be secondary to these) clients from different diagnostic categories can generally be included in a single group. However, because of the particular difficulties encountered by the schizophrenic client, it might be desirable to keep the proportion of schizophrenic to non-psychotic members to a minimum. Here the therapist must use his judgement as to the advisability of the mix. This would apply to both individualized and standardized training.

5.5 SOCIAL SKILLS TRAINING WITHIN THE BROADER THERAPEUTIC OR TRAINING CONTEXT

Social skills training may be the only type of treatment or training necessary for a particular individual's problem. However, it is frequently used in conjunction with other therapies or as part of a more comprehensive training programme.

Where lack of social skills is only one of the client's difficulties he may be receiving therapy for other aspects of his problem concurrently with social skills training. If the same therapist is involved then there should be little difficulty in combining various therapeutic approaches,
although both the client and the therapist should be clear about which approach is being used to tackle which problems. If the client is receiving other treatment from a different therapist, care must be taken to clarify the objectives of the various methods for the client so that he avoids becoming confused. This requires careful preparation of the client as well as good co-operation and communication between therapists (see Sections 6.1 and 6.2).

Social skills training often forms part of a broader training programme, e.g. in rehabilitation programmes for long-term prisoners or chronic psychiatric patients, in sex education for the mentally handicapped person, and in the teaching of living and job skills to adolescents. In such cases the design of the social skills programme should not be carried out in isolation from other aspects of the programme but should be an integral part of an overall plan tailored to fit in at the appropriate time with the teaching of other skills. It is of little value, for example teaching the social skill aspect of shopping, job finding and socializing to institutionalized clients in isolation from the practical living skills such as knowing where shops are, what food to buy, how to get to shops, to find jobs, to complete application forms, etc. The two are interwoven and it is necessary to design a programme to integrate the skills. Team effort is therefore essential so that all members involved with clients are clear about their aims and differential responsibilities.

This chapter has demonstrated how the material from assessment is used to plan and design programmes for both individuals and groups. The success of social skills training is dependent on having a well-designed programme that not only meets the needs of particular individuals, but which is practical and sensible in terms of the time and resources available.
Preparation for and Management of Social Skills Training

6.1 Preparing the client
6.2 The trainers
6.3 Visitors and trainee therapists
6.4 Significant others
6.5 The environment
6.6 Participation and involvement in training
6.7 Maintaining a behavioural approach
6.8 Maintaining a positive approach
6.9 Maintaining a structured but flexible programme
6.10 In conclusion
Having carried out a detailed assessment of the client's difficulties and designed an appropriate social skills training programme, all that remains is to carry out the training! Careful assessment and good planning minimize the problems of managing the training. However, as with any other form of training or therapy, successful social skills training presupposes a high level of competence and therapeutic skills on the part of the trainer. No manual can give this, but this chapter looks at some of the more important features concerned with the preparation and management of training. Some of these points will have been made elsewhere but are repeated here to emphasize their importance.

6.1 PREPARING THE CLIENT

The client will have been seen for an assessment of his specific problems (Chapter 3). Before embarking on a social skills programme it is important that the client is well prepared and a further meeting may be necessary to ensure that he has some understanding of the purpose of the training, the form it will take and what is expected of him. The level and detail of the explanation will of course depend upon the particular client and context in which the programme is to take place.

It is important too that the client understands that the purpose of the programme is to enable him to achieve the goals that have been set. He can be given an explanation of the social skills approach and an outline of the methods to be used so that he will be clear about what he can expect.

Details of the arrangements for sessions should be given and punctuality, regular attendance, commitment and full co-operation of the client should be stressed. A number of procedures can be used to enhance the motivation and co-operation of clients. Training can be made conditional upon regular attendance, with the client required to account satisfactorily for absences. This is particularly important when working with clients in the community. With children, chronic psychiatric patients or mentally handicapped persons, it may be useful to have an inbuilt incentive scheme such as a token system of rewards for attending sessions (see Sections 4.5.2 and 7.2). To ensure commitment to a programme a contract system can be used which lays out the aims of the programme plus what the therapist agrees to supply and the client to attempt (Kanfer and Karoly, 1972). Contracts can be powerful motivation for those who need an external nudge. They are particularly useful for
nework assignments providing a necessary incentive since both yard from the therapist and other participants and continuation in theogramme is dependent on achievements, plus attempts to achieve, side the training situation.

t importance of homework should be explained and emphasized so the client understands that practising the skills outside the training sion is as equally important as participating in the session itself. He y be required to keep a homework assignment book in which to record homework tasks, performance and achievements, and this should be clained to him. It can provide a useful incentive in some cases (see tions 4.6 and 7.3).

t client is to attend a group he should be told who the group members likely to be and the value of the group in giving support and ouragement as well as offering the opportunity to meet with others in imilar position. He should also be told that everyone in the group is ected to participate, including the therapist, and the object is to have as well as to learn from it.

**THE TRAINERS**

- Trainer should have skills to establish a warm and trusting tionship with his client and this can be built up at the assessment ge.

is will facilitate the client's understanding of his difficulties and p him accept the training. Having a good relationship with the client l enable him to work in the sessions and enhance the trainer's ectiveness as a 'reinforcer'. If the trainer is to run a group, experience roup skills is beneficial. These can be acquired by participating in a ining group and by assisting an experienced trainer. Potential trainers en ask whether it is necessary to be highly socially skilled to conduct ining groups. The trainer should be reasonably competent but more portant is an understanding of social interaction and strategies for rcoming difficulties in social situations.

- In one-to-one sessions it is usual to have only one trainer. However, a y be useful and possible to enlist the help of staff members for work specific areas where it is important to have extra people for a role- y or where a female trainer requires a male person to role-play for a
client with particular difficulties with male figures. If this is the case it should be planned and arranged in advance and the staff member should be fully briefed as to what is required of him.

In group training it is advisable to have at least two trainers working with the group. A male and female trainer will obviously offer the best combination of models, but if this is not possible same sex trainers can work effectively together. Two trainers are advisable for both managing the exercises and coping with the extensive demands placed on them in organizing and running such a group. If video is to be used, one trainer is needed to operate the equipment and a second to organize the role-play and feedback.

It is essential, if there are to be two trainers, that they work out complementary roles from the outset. Both should be involved in the assessment of clients if possible. This is particularly important for those working together for the first time.

Careful and detailed planning is essential for a successful social skills programme. In both a one-to-one and a group individualized programme, there will be more flexibility within sessions, but none the less, an overall plan and design of exercises is desirable. Where there are two trainers involved this should be done together throughout and decisions about type and content of programme for particular clients’ problems jointly made.

It is extremely important that both trainers know clearly in advance who is doing what in the session. Because social skills training is highly demanding of the trainer and needs careful directing, it is useful to split up a session with trainers taking it in turns to instruct and set up and run exercises. Each trainer should have his job to do and be able to give support to the other when necessary. From the outset frank discussion between the trainers should take place and a feedback session after each session is useful. Those sessions will allow the trainers to iron out problems in planning as well as meshing of their training skills. Problems between trainers, if unresolved, greatly disrupt the smooth and effective running of a group.

Finally, as discussed in previous sections, it is important that trainers establish good working relationships with their referring agents and with other trainers or therapists that may be involved with their clients in other capacities. Regular feedback between those involved with a client
ill enhance colleagues’ understanding of the social skills approach which will facilitate appropriate referral and avoid confusion and misunderstanding.

3 VISITORS AND TRAINEE THERAPISTS

It is useful for trainers to decide at the outset their policy on admitting visitors or trainee trainers to the sessions. It is not advisable to have visitors as observers and a useful rule is that they participate in the exercises. Trainee trainers, similarly, should be expected to participate in the sessions and their role, whether as client participators or trainers, ade explicit both to themselves and to the clients.

With a closed group, as in a standardized programme, it is advisable to insist that visitors attend all sessions as group members because occasional attendance can be disruptive to the support and cohesiveness of the group. This may be less likely to occur in an open group with an individualized training programme because the group will be more used to people coming and going. It is advisable however to plan the visits in advance and to let the clients know what to expect.

4 SIGNIFICANT OTHERS

The object of social skills training is to change the interpersonal behaviour of the client. This will inevitably mean that if effective it will change his behaviour in relation to those with whom he is in contact. It may be necessary, depending on the client, to discuss with those persons most likely to be affected by the change what they can expect and to list their co-operation. For example, when working with children it could be necessary to involve the family so that parents can understand what the child is attempting to learn and be able to participate, for instance in the homework tasks. Similarly, it will be important to discuss with a wife or husband the changes that may take place in his or her spouse. This may be particularly important if the client is in an institution where contact with the family members is not a frequent occurrence, e.g. prison.

Working within an institutional setting, the client will be returning to his ward or domestic setting and his attendants or nurses should be involved in his training at the outset. They should be included in a discussion of the aims of the training and their assistance sought at the
assessment stage where they can provide valuable observational information. They play a vital role in guiding and reinforcing the new behaviour of the clients acquired in the training sessions and can give valuable feedback to the trainers on the progress the client is making. There is little point in shaping up a person’s conversational skills in training if when they return to the ward they are told to ‘shut up’ as the staff haven’t got time to talk to them!

6.5 THE ENVIRONMENT

In one-to-one training it is most likely that an office environment will be used. If this is the case it should provide enough space and be furnished in a flexible manner to provide the opportunity for setting up role-plays. With groups a large room that will accommodate the group comfortably with space to move around is necessary. Easy chairs and a carpeted floor are desirable. A blackboard or large sheets of paper which can be pinned to walls are also useful. There should be sufficient materials and furniture to be used as props in the role-plays, such as glasses in pub scenes, a telephone, or substitute props, e.g. a coat stand for a bus stop. Privacy is an important factor and sessions should run uninterrupted and unobserved.

In some instances it may be necessary to follow the training sessions with in situ training, e.g. taking chronic patients into a pub so that their performance can be monitored and guided. In such cases the place should be carefully checked out by the trainer beforehand so that any possible difficulties can be dealt with.

6.6 PARTICIPATION AND INVOLVEMENT IN TRAINING

In a one-to-one situation the trainer can directly encourage and involve the client in training with discussion, reinforcement and feedback. With group training extra effort may have to be made to encourage all members of the group to participate fully and thereby become involved with their own and others’ training and progress.

Participation can be achieved by questions and discussion following instruction and by using group members to model behaviours which they can demonstrate effectively. Everyone should take his turn in the role-play exercises, with group members playing the parts of others in the
The rest of the group should then be involved in giving feedback. This can be done verbally, following the guidelines suggested in Section 4.5.1, or members can allocate marks for the specific behaviours using, for example, three fingers for excellent, could not be improved; two for very good, but needs some work; one for all right, but needs quite a lot of work. Clients can then be asked to explain why they were given a particular rating. This ensures that the rest of the group pays attention to the client working and also helps them to develop observational skills that might be useful outside training. In order for em to do this effectively of course they must be able to see clearly what takes place in the role-play and this may necessitate organizing em into appropriate positions in the room.

A client opts out of role-play, the therapist must find out why. Is it cause he thought it stupid? (It might be!) Is it because he found it too difficult? If so, the role-played scene can be broken down and tackled step by step by the client, with modelling as necessary (see Chapter 4). He should be encouraged, but if he is pushed into doing anything which is too difficult he is less likely to co-operate in further training. Similarly, if the client did not attempt the homework, why not? As it because it was too difficult? If so further training may be cessary or the task broken down into smaller steps. Encouragement d suggestions from other members may also help him. Did the client understand what was expected of him? Further explanation might be cessary. Did he forget? Record cards or notebooks can be essential. Homework assignment books and homework reporting also facilitate involvement because each group member is required to say how he got and can be given feedback and encouragement from the other embers. Was it that he couldn't be bothered? In this case a contract, making therapy dependent upon completion of homework, may be cessary. Alternatively, an incentive scheme related to homework completion could be used, e.g. points awarded for each assignment, aphically displayed to indicate progress (see Section 7.3).

Other methods not directly related to the actual training can be eluded to encourage participation, such as opening introductions, sensitive event reporting (see Sections 5.3.4 and 7.1), games (see Sections 3.4 and 7.2) and farewells at the end of a session. The therapist should clear about the rationale of the inclusion of such exercises and, as ith the training, they must be carefully thought out and appropriate to e population for whom they are designed.
6.7 MAINTAINING A BEHAVIOURAL APPROACH

In social skills training it is essentially behaviour which is being taught. People will, of course, come with their own feelings, attitudes, opinions and perceptions of themselves and others which are likely to emerge and probably change during the course of training.

However, it is extremely important that a behavioural approach is maintained and that the client, who will have been prepared for this at the assessment stage, is encouraged to concentrate on acquiring and practising new behaviour during session time. This is not to say that thoughts and feelings are not important and should be ignored, only that they should, if appropriate, be explored within the context of the behaviour being taught. A more general discussion with the client of his problems or any difficulties he may be experiencing with the training model should take place at a separate session. When working with individual clients the trainer may include social skills training within a more general discussion of problems. However, it is important that the trainer structures his session so that he is able to concentrate on the behaviour of the client when working with his social skill difficulties.

Training is, of course, always concerned with specific aspects of behaviour and even in dealing with role-plays of quite complex interactions it is necessary to identify in advance the key behaviours on which to concentrate (see Chapter 3). Giving feedback should also encourage clients to think in terms of specific behaviours rather than making value judgements about a client's performance (see Section 4.5.1).

Questions to the client about his performance in homework tasks or role-plays should always be phrased in behavioural terms. The trainer should avoid asking the client questions such as 'how did you feel?', but ask 'what was good about the way you did it?' followed by 'how could you have improved on it?', thereby encouraging the client to think about his performance in terms of his behaviour in the situation. Similarly, when the client comments on his feelings about his performance rather than his behaviour, he should be encouraged to formulate what was good or not so good about his behaviour.

Frequently, at the start of training, a client may say that it 'doesn't feel
When suggestions for behavioural change are made, for example to increase voice volume. The client should nevertheless be encouraged to try out the new behaviour and practise it for a period of time to give the opportunity for the behaviour to become integrated into his behavioural repertoire. If he still maintains that it is not right after a period of time, then the instructions should be modified.

Maintaining a behavioural approach and making it clear that, for a moment, it is just behaviour which is being practised, an environment created in which the client can try out a range of behaviours free from value judgement of others and from the limitations of his own self-perceptions.

8 MAINTAINING A POSITIVE APPROACH

The atmosphere of a social skills training session should always be positive and supportive, with the emphasis on what the client can and is working to achieve rather than on his deficits and failures. Role-play exercises and homework assignments should be pitched at a level which enable the client to succeed, and social reinforcement in the form of undant and enthusiastic praise should be given for any achievement, however small. If the client has been unsuccessful in carrying out any exercise, then he can be rewarded for trying, and, if necessary, the exercise or assignment can be broken down into small stages and tried again.

Feedback should always concentrate on the positive aspects, with suggestions for improvement (see Section 4.5.1) and the therapist should persistant in interrupting any negative feedback by asking the group member to re-phrase it in positive terms.

Methods can be devised for starting the session on a positive note, e.g. positive event reporting. The therapist might have to probe a little with me clients to elicit something positive, but he should not give up.

Finally, maintaining a positive approach does not mean that the therapist ignores or is oblivious to a person or persons in the group who may be irritated or distressed. An experienced therapist will be able to be sensitive to this and keep the group positive at the same time.
6.9 MAINTAINING A STRUCTURED BUT FLEXIBLE PROGRAMME

Although emphasis has been placed in this manual on the planning and preparation of sessions in advance, in any real situation the unexpected is bound to occur. A client might suddenly get an interview for a job, be asked out for a date or have to face a new boss. When this type of situation, which is obviously important to the client, arises, time can be set aside for training on the new situation, involving other members as much as possible. For example, they could be consulted as to how much time is to be spent on the role-play and discuss the possible ways of handling the situation.

Sometimes it happens that, as training proceeds, the client turns out to have social skill difficulties other than those identified at assessment. A reassessment can then be made and any necessary adjustments made to the programme.

6.10 IN CONCLUSION

As must be apparent in this manual, social skills training is a specific, directive and highly structured form of training requiring careful identification of problems and detailed preparation of programmes, therapists and clients. It is organized but not rigid and will no doubt continue to develop and change. Whilst most trainers and clients find it a demanding form of training, they usually also find it highly rewarding, stimulating and fun.
7 Social Skills Training Programmes

7.1 Social skills training programme for a psychiatric out-patient population
7.2 Introductory social skills training programme for a mentally handicapped population
7.3 Work social skills programme for rehabilitation of chronic psychiatric patients
7.4 Aggression management programme for young offenders in custody
7.5 Heterosocial skills training programme for a shy male

These programmes have been designed, or are based on those designed by practitioners in different fields for their own clients. They are included here as examples of the various types of programmes currently being used. They are written as notes for the trainer and it is hoped that the reader will find them helpful in designing programmes for his own population rather than as blueprints for training. Further information on any of the programmes can be obtained directly from the practitioners themselves.
7.1 SOCIAL SKILLS TRAINING PROGRAMME FOR A PSYCHIATRIC OUT-PATIENT POPULATION
Devised by Sandra Canter and Jill Wilkinson, University of Surrey, Guildford.

This programme was designed and is used as a general standardized training in social skill. The clients for the groups are men and women of various ages and clinical diagnoses, some of whom would be involved in other forms of therapy or be seen for additional individualized social skills sessions.

The programme consists of twelve weekly 2-hour sessions with two therapists and a maximum of fourteen participants.
SESSION 1

ION-VERBAL BEHAVIOUR I: POSTURE, GAIT, PERSONAL DISTANCE, GESTURE

1. WELCOME to the group.

2. INTRODUCTION TO THERAPISTS. We introduce ourselves by our first names and say a little about ourselves.

3. ROUND-THE-GROUP NAMES. Each person gives his first name in turn and we go round the group about three times, slowly.

4. INTRODUCTION TO SOCIAL SKILLS TRAINING, including what it is, some of the techniques used during training, and what is expected of members in terms of participation, commitment and homework tasks.

5. INSTRUCTION
   General talk on non-verbal behaviour, its importance and function (see Section 2.1). Emphasis on gait, posture, distance and gesture discussed within a range of situational contexts (see Sections 2.1.3, 2.1.4 and 2.1.5).

6. WARM-UP EXERCISE (Posture)
   (Before introducing this exercise the rationale for warm-ups is explained, see Section 4.4).

   Therapists choose pairs who sit in chairs opposite each other. Everyone is asked to ‘freeze’, i.e. keep absolutely still and to become aware of, and remember, both his own posture and that of his partner. Then one partner of each pair can ‘unfreeze’ and he then is instructed to prompt (using verbal, gestural and physical prompts) his partner into a relaxed, confident posture. He then checks this out with his partner and together they adjust the posture if necessary. The aim of this exercise is to achieve a posture which both looks to others and feels to the person himself, relaxed and confident. The couples then reverse roles and the other partner adopts the posture.
he initially froze and is prompted into his relaxed and confident posture. Again, this is checked out and adjusted if necessary. During this sequence the therapists go round the pairs giving feedback and helping out where necessary.

7. **WARM-UP EXERCISE (Gait)**
   Group and therapists mill around the room
   (a) with exaggerated soggy gait,
   (b) strutting and cocky,
   (c) relaxed and confident.

8. **WARM-UP EXERCISE (Distance)**
   In pairs. One partner stands still, the other advances and stops at a comfortable distance. He then checks out with his partner whether the distance is too near, too far, just right and makes adjustments as necessary. Reverse roles and repeat.

9. **WARM-UP EXERCISE (Gesture)**
   In pairs. Each partner in turn describes the house he lives in using
   (a) grand exaggerated gestures,
   (b) appropriate gestures.

10. **ROLE-PLAY**
    (Before role-play is set up, therapists give instructions on observation and giving feedback; see Section 4.5.1.)
    **Situation.** Entering a pub and joining a friend. One partner enters, sees friend by bar, gestures, walks across, stops at appropriate distance, gestures to a table and sits down.
    **Behaviours for feedback.** Gait, gesture, posture.
    **Procedure.** Practised in pairs, each person taking a turn and presented to the group for feedback.

11. **HOMEWORK**
    Twice a day practise sitting and walking in a relaxed and confident manner.

12. **GAME** (see Section 5.3.4).
SESSION 2

ON-VERBAL BEHAVIOUR II: FACIAL EXPRESSION, EYE CONTACT, TONE OF VOICE

. NAME AND POSITIVE EVENT REPORT (see Section 5.3.4)
(Each person introduces himself and reports something good which has happened during the previous week.)

. HOMEWORK FEEDBACK (see Chapters 4 and 6 and Section 6.6)

. INSTRUCTION
Talk on eye contact, facial expression and tone of voice with emphasis on their importance in expressing emotion (see Sections 2.1.1, 2.1.2 and 2.1.8).

. WARM-UP EXERCISE (Eye contact)
Group mills around room, looking around. When therapist says stop, clients pair up and maintain eye contact for 3 seconds. Repeat several times.

. WARM-UP EXERCISE (Facial expression)
List of emotional states on board (e.g. happy, sad, angry, contemptuous, bored, enthusiastic, interested). Therapist whispers to each client in turn which emotion he has to portray through facial expression. Group guesses. Therapist models and prompts as necessary.

. WARM-UP EXERCISE (Emotional tone)
In pairs sitting back-to-back on floor one partner recites a nursery rhyme in an emotional tone chosen from list (as in previous exercise). Other partner has to guess. Reverse roles and repeat.
7. **ROLE-PLAY**
   Situation. Greeting (hello, hi, etc.) someone as you pass them in the street
   (a) in a warm, friendly manner,
   (b) formally.
   **Behaviours for feedback.** Facial expression, eye contact, tone of voice.
   **Procedure.** Practise both modes in pairs and present one to group for feedback and rating.

8. **HOMEWORK**
   Get each person to identify a situation in which to practise a non-verbal greeting. Practise every day.

9. **GAME**
SESSION 3

ON-VERBAL BEHAVIOUR III: VOCAL CUES

. NAME AND POSITIVE EVENT REPORT

. HOMEWORK FEEDBACK

. INSTRUCTION
Talk on vocal cues, i.e. tone, volume, pitch, redundancies, fluency. Emphasis on their importance in expressing emotion, showing feeling and gauging the other's mood (see Section 2.1.8).

. WARM-UP EXERCISE (Volume)
In pairs. Sitting opposite each other one partner recites a nursery rhyme as loudly then as quietly as possible. Partner encourages by gesture, facial expression, etc. Reverse and repeat.

. WARM-UP EXERCISE (Speed)
As above, but this time as quickly as possible then slowly and drawn out.

. WARM-UP EXERCISE (Pitch)
As above, but this time starting the rhyme at the bottom end of the scale and working up to a high pitch and down again.

. WARM-UP EXERCISE (Tone)
In two small groups.
(a) Each person reads a 'neutral' newspaper article in a specified tone of voice.
(b) Next time round each person reads a more emotionally charged article in a tone appropriate to the content, but slightly exaggerated.
8. ROLE-PLAY
   Situation. In pub (as in Session 1) client enters, sees 'long-lost' acquaintance, walks over, says something like, 'Hello, I haven't seen you for a long time.' Acquaintance asks if he would like a drink, gets it, client suggests they should sit down and says enthusiastically: 'What have you been doing since I last saw you?' Acquaintance says: 'Well, it's been a bit hard, I've been out of work for the last 6 months.' Client replies with appropriate tone, 'Oh, I'm sorry to hear that.'
   Behaviours for feedback. Tone of voice, volume, pitch.
   Procedure. Practised in pairs and presented to the group for feedback and rating.

9. HOMEWORK
   (a) Every day greet someone using friendly tone of voice (remembering facial expression, etc.).
   (b) Each day note down what someone's tone of voice told you about their mood (were they friendly, bored, angry).

10. GAME
SESSION 4
VERBAL BEHAVIOUR I: LISTENING, ENCOURAGING THE OTHER TO TALK, ASKING QUESTIONS

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. INSTRUCTION
   Talk on conversation with emphasis on listening (stressing the role of non-verbal behaviour, particularly eye contact, facial expression and posture), and drawing the other person out by use of questions, picking up cues and reflecting back (see Section 2.2.2.1).

4. WARM-UP EXERCISE (Listening)
   In two groups, one therapist per group. Each member of small group takes it in turn to listen and show he is listening while the therapist, or another client, talks about a topic of general interest (e.g. where he went on holiday).

5. WARM-UP EXERCISE (Encouraging the other to talk)
   As before, but this time client has to ask questions, respond to cues and reflect back.

6. ROLE-PLAY EXERCISE
   Situation. At work. A new person has started work that day and the client has to draw him out by asking questions, reflecting back and listening.
   Behaviours for feedback. Questions — appropriateness and number, eye contact.
   Procedure. Practised in pairs and presented to the group for feedback and rating.
7. **HOMEWORK**
   Ask clients individually to identify situations in which they can practise listening and encouraging the other to talk. They are instructed to do this once a day.

8. **GAME**
SESSION 5

VERBAL BEHAVIOUR II: TALKING, MAINTAINING CONVERSATION

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. INSTRUCTION I (Talking)
   Choosing a topic appropriate to person and situation, current interests, etc. Levels of disclosure from fact to feeling (see Section 2.2.2.1).

4. WARM-UP EXERCISE (Description)
   In two groups, one therapist per group. Each person takes 1 minute to describe some activity in which he has engaged in the last week (e.g. preparing a meal, going to a football match).

5. WARM-UP EXERCISE (Self-disclosure)
   In same groups. Each person takes 1½ minutes to talk about himself with the rest of the group giving attention. He starts off with 'I'm ... and I ...', but not repeating what he has said about himself until his time is up.

6. INSTRUCTION II (Maintaining conversation)
   Emphasizing the use of non-verbal behaviour in hand-over of conversation (see Section 2.2.2.2). Therapists can model this.

7. WARM-UP EXERCISE (Conversation)
   In pairs.
   (a) Therapist gives specific topic for a 2-minute conversation. This is repeated with another topic.
   (b) Trainer gives two topics and clients have to change from one topic to the other.
Suggested topics: the weather, holidays, public versus private transport, current affairs, music.

8. **ROLE-PLAY**
   **Situation.** At a bus stop. Client is joined by someone he knows but hasn’t seen for some time, who starts conversation by saying, ‘I haven’t seen you for a long time’. They continue for about 3 minutes.
   **Behaviours for feedback.** Appropriateness of content, picking up cues, handing over.
   **Procedure.** Practised in pairs then presented to group for feedback. Each pair has just one conversation and half the group observe and gives feedback on one partner, the other half on the other.

9. **HOMEWORK**
   One conversation each day with someone you know.

10. **GAME**
SESSION 6

VERBAL BEHAVIOUR III: OPENING AND CLOSING CONVERSATIONS

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. INSTRUCTION I (Introductions)
   Of self to another and of two people to each other.

4. WARM-UP EXERCISE (Introductions)
   In a circle. One person starts, introduces person on left to person on right, gives names and some small piece of information about each or something they have in common, e.g. 'John, this is Harry, I think you both went to the same school.' Proceed round the circle.

5. INSTRUCTION II (Initiating conversation)
   This could take the form of a discussion. Elicit from group possible ways of initiating conversation (see Section 2.2.2.2).

6. WARM-UP EXERCISE (Initiating conversation)
   Group mills around the room. Each person has to stop and make opening remark to at least four people.

7. INSTRUCTION III (Ending a conversation)
   This again could take the form of a discussion (see Section 2.2.2.2).
8. **ROLE-PLAY**

**Situation.** In pub. Client is seated with friend, third person approaches who is known only to client, who introduces him to friend, initiates and maintains conversation then leaves.

**Behaviours for feedback.** Introduction, opening sequence, parting sequence.

**Procedure.** Introduction, opening remark and closing practised in threes, then whole sequence presented to the group for feedback and rating.

9. **HOMEWORK**

Open, maintain and close a conversation at least once a day.

10. **GAME**
SESSION 7

ASSERTIVE BEHAVIOUR I: STANDING UP FOR YOURSELF

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. INSTRUCTION
   General talk on what is meant by assertion in this context (see Section 2.3) emphasizing standing up for yourself without being aggressive or argumentative. Important behaviours would include firm tone of voice, steady eye gaze, straight posture, being polite without being apologetic. Types of situations might include taking a faulty article back to a shop, disagreeing or arguing a point, dealing with high-pressure sales people, coping with criticism or being provoked, speaking out in a group, dealing with someone who takes unilateral decisions which affect you (e.g. changing the TV channel), asking for a rise or better conditions at work, giving instructions or orders.

4. ROLE-PLAY
   Situation. Each person identifies a specific situation or type of situation in which he has difficulty being assertive (he might be overly timid or aggressive).
   Behaviours for feedback. Relevant to the individual situation but tone of voice and posture usually important.
   Procedure. Each person in turn describes a situation and client and therapists set up a role-play of what actually happened. Suggestions are made for different behaviours and alternative strategies, the scene repeated and feedback given.

5. HOMEWORK
   Practise role-played situation if possible. If not practicable then choose another situation requiring assertive behaviour, e.g. buying an article the wrong size and taking it back to change it.
SESSION 8

ASSERTIVE BEHAVIOUR II: ASKING, ACCEPTING, TURNING DOWN

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. INSTRUCTION
   
   **Asking.** Emphasis on being direct, looking at the other (unless on the telephone), making it clear what you want (whether it is to ask someone out or a favour).
   
   **Checking-out procedures.** Discuss ways of checking-out whether he/she is interested before actually asking him/her out. This minimizes chance of refusal or embarrassment. Model (see Section 2.3.2).
   
   **Recovery from refusal.** When you ask someone out and they turn you down, it is important to acknowledge your feelings about being turned down but ending with a positive statement leaving your options open, e.g. 'I'm sorry you can't/don't want to come. I'll call you again some time' (see Section 2.3.3).
   
   **Accepting.** Emphasize being positive about accepting by tone of voice. Whether it's 'Yea O.K.' or 'Yes I would like to go', the message can be the same.
   
   **Turning down.** Important to get the message you intend across. If you are saying 'no' to an unreasonable request then it is important to say 'no' and not make unnecessary excuses. If you don't want to go out with someone then maybe one excuse might act as a 'face-saver' for the other person but no more. If you would like to help or go out with this person but can't for some reason then make this clear, e.g. 'I would have liked to come but unfortunately I've already made arrangements for Monday evening' followed by an alternative 'I could go on Tuesday' or 'maybe next time' (see Section 2.3.4).

4. WARM-UP EXERCISE (Saying 'no')
   
   In circle (or group can be split into two). One person starts by making an unreasonable request to the person on his left, e.g. 'I know you're not doing anything this weekend, I wonder if you could drive me to
Lands End to see my sister who has just had triplets'. The other has to respond first by recognizing the asker's need, 'I know how much you want to see your sister' followed by a firm, 'but no,' with no excuses. He then turns to the person on his left with a request, etc.

5. **WARM-UP EXERCISE** (Asking, accepting, turning down and recovery)
   In a circle as before. This time the first person asks the person on his left to do something (reasonable) or to go out with him. His request is accepted enthusiastically. This person then turns to his left with a request or invitation which is turned down because the person doesn't want to comply. The person asking then has to make a recovery statement. The next time the person turns the invitation down because he can't accept, the next accepts and so on.

6. **ROLE-PLAY**
   **Situation.** Individuals can choose whether to carry this out on a telephone or face to face. They set the scene themselves. In pairs, one person asks the other out. He responds by
   (a) accepting,
   (b) turning down because he doesn't want to go, and
   (c) turning down because he can't go.
   If the asker is accepted then arrangements are made to meet; if turned down because the other can't make it then alternative arrangements made; if turned down flat then he makes a recovery.
   **Behaviours for feedback**
   (a) For asker: making it clear what he wanted, tone of voice, follow up arrangements/recovery.
   (b) For respondent: making message clear, tone of voice.
   **Procedure.** Practised in pairs and presented to the group for feedback. Half the group observe and give feedback on one partner, the other half on the other partner. Reverse roles and repeat.

7. **HOMEWORK**
   Group members make arrangements to telephone each other with a request or invitation. This must be 'real', e.g. 'Could you meet me for coffee, ten minutes before the group meet next week?' The respondent can then accept or turn down the invitation. Additionally, if anyone has an actual situation which they would like to practise this can be done as part of their homework.
SESSION 9

ASSERTIVE BEHAVIOUR III: PAYING AND RECEIVING COMPLIMENTS, SHOWING AFFECTION

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. INSTRUCTION I
   Paying a compliment is a way of showing you like someone. Comments can be about appearance, ‘I like that jacket you’re wearing’, about something the person has done, ‘You’ve made a really good job of that’, or about the person themself, ‘You always strike me as a very understanding person (see Section 2.3.5).
   Receiving a compliment. Accept it with thanks or by positive non-verbal signals, don’t deny it, shrug it off or invalidate it.

4. WARM-UP EXERCISE (Paying and receiving compliments)
   One person stands on a chair in the centre of the room. Others mill about and each has to pay a compliment to the person in the middle who has to receive it appropriately. Repeat until everyone has had a turn in the middle.

5. INSTRUCTION II (Showing affection)
   Emphasize getting the level right, and checking out by being sensitive to feedback from the other. Affection shown by physical proximity, touch, tone of voice, facial expression, terms of endearment, paying compliments, listening, taking an interest, responding positively and remembering things which are important to the other, likes and dislikes.

6. WARM-UP EXERCISE (Showing affection)
   Group forms two lines at opposite ends of room. One person from each line walks or runs towards the other and they meet in the centre
of the room, greet each other enthusiastically, as if meeting a long-
lost friend at a station. Repeat until all members have had a turn.

7. ROLE-PLAY

Situation. After an evening out with a friend, boyfriend, girlfriend,
husband, wife or lover. In the car or walking home (each individual
chooses the situation). Affectionate interchange about how much
they enjoyed the evening, each other’s company, etc.

Behaviours for feedback. Proximity/touch, positive content, tone of
voice.

Procedure. Practised in pairs and presented to the group for feedback.
Half the group give feedback on one partner, the other half on the
other partner.

8. HOMEWORK

Pay a compliment or have a positive interaction at least three times
during the week.
SESSIONS 10 AND 11

INDIVIDUAL WORK

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. ROLE-PLAYS
   Individuals identify any remaining areas of difficulty and three or four per session are role-played, first as it happened, then instructions and suggestions can be made by therapists and group and scene role-played again (see Section 4.3). Some of the scenes listed below might be useful to work on in these sessions:

(a) Interviews.
(b) Dealing with work supervisors/work-mates.
(c) Dealing with social agencies and bureaucrats.
(d) Asking a friend to the house.
(e) Asking a favour.
(f) Going to a restaurant.
(g) Approaching others at a party or discotheque.
(h) Being short changed in a shop.
(i) Disagreement with family.
(j) Dealing with pushy shop assistants.
(k) Telling someone your problems.
(l) Listening to another person's problems.

4. HOMEWORK
   Individual work.
SESSION 12

INDIVIDUAL WORK AND GOODBYES

1. NAME AND POSITIVE EVENT REPORT

2. HOMEWORK FEEDBACK

3. INDIVIDUAL ROLE-PLAYS
   As in Sessions 10 and 11.

4. THERAPISTS' GOODBYES
   About half an hour before group is due to finish, therapists say good­bye and leave the group to decide on their own farewells and any future arrangements to meet.
7.2. INTRODUCTORY SOCIAL SKILLS TRAINING PROGRAMME FOR A MENTALLY HANDICAPPED POPULATION

Devised by Jim McDonald and John Flynn, charge nurses at Northfield Unit for the Mentally Handicapped, Aldershot.

This programme was designed for about six mentally handicapped adult residents to improve their social skills in specific situations which they are likely to encounter inside the unit and in the community.

The sessions last for one hour (including coffee) and the group meets with four staff members once a week. Other members of staff are involved in the homework assignments.

The programme includes an incentive scheme which has proved to be very popular with the group members. At the beginning of training each member is given a booklet in which he sticks a star which he is awarded for each session he attends. At the end of training he receives a £1 note for the full complement of stars. This can be spent in one of the local shops and the expedition forms an extension of training.

This introductory programme is followed by a further five sessions which include:

(a) Using the telephone inside the unit.
(b) Using the telephone outside.
(c) Going to a cafe.
(d) Going on a bus.
(e) Dressing and personal appearance.
SESSION 1

GREETINGS

1. NAMES
   Group sits round in a circle and each member tells his or her name to the others.

2. EXPLANATION
   Explain what we are going to do, what is expected of everyone and what rewards there will be.

3. GAME
   Dancing on squares or hoops. Hoops are placed on the floor. The group mills around the room. When the music stops each person stands in a hoop. The hoops are gradually removed until all the group is standing in one hoop.

4. WARM-UP EXERCISE
   Walk around to music. Stop. Say ‘Hello’ to somebody next to you. Repeat several times.

5. INSTRUCTION AND MODELLING
   The group leaders explain and demonstrate ways of greeting someone. They show a bad example first, then a good one. This could simply be meeting a friend in the street. Important behaviours are:
   (a) Posture — standing up straight at an appropriate distance.
   (b) Gesture — shaking hands or embracing.
   (c) Facial expression — smiling but not silly laughing.
   (d) Verbal content — ‘Hello, how are you? It’s nice to see you again. What have you been doing?’ etc.
6. ROLE-PLAY
The above greetings are carried out by the group in pairs. They are asked to imagine they are meeting someone they know slightly in the gardens. Praise is given and, where necessary, guidance. Each pair can show their exercise to the group.

7. GAME
Repeat the Hoops Game above in order to finish off in a good mood.

8. REWARD
Refreshments and token for attending.

9. HOMEWORK
Initiated by Group Leaders meeting Residents on the bungalows.
SESSION 2

SHARING

1. NAMES
   Each member tells his name and the bungalow where he lives or works.

2. HOMEWORK FEEDBACK
   How did people get on with their greetings?

3. WARM-UP EXERCISE (Repeat practice from previous week)
   Following from exercise last week, we mill around the room, then stop and meet somebody, say ‘Hello’ and introduce ourselves, or say what we’ve been doing.

4. GAME
   Passing the parcel — or a variation. We are going to be passing things around in our exercise today.

5. INSTRUCTION AND MODELLING
   (a) Passing sweets around, e.g. ‘Would you like a sweet?’, smiling and letting person choose his own. Person receiving says, ‘Thank you’ choosing only one and not a handful.
   (b) Giving a present, e.g. ‘This is a present for your birthday, it’s from all of us. I hope you like it.’ Note gesture, the way the present is handed to the person, maybe shaking hands.
   (c) Showing something of interest to someone else, such as something they have bought in a shop. ‘I’ve just bought this soap. Doesn’t it smell nice?’

6. ROLE-PLAY
   The above ‘sharing exercises’ are repeated in appropriate situations by the groups in pairs. Praise is given and those in difficulty are guided through the different stages.
7. **GAME**  
Repeat the Hoops Game from last week so everyone gets to know it.

8. **REWARD**  
Refreshments and token.

9. **HOMEWORK**  
The exercises are practised in real life with the help of the bungalow staff.
SESSION 3

BUYING AT A SHOP

1. NAMES
   Each member tells his name to the group. Note if there is now any
   more confidence.

2. HOMEWORK FEEDBACK
   How did people get on with the sharing experience?

3. WARM-UP EXERCISE (Repeat practise from previous session)
   Sitting in a circle, each member shows us something that he has
   bought. This could be clothing, a watch, jewellery.

4. WARM-UP EXERCISE
   Going around the circle again each member tells the group of some­
   thing else he would like to buy.

5. INSTRUCTION AND MODELLING
   For example:
   ‘Good morning, I’d like to buy some shampoo.’
   ‘Which kind would you like?’
   ‘One for greasy hair.’
   ‘This is on special offer.’
   ‘How much is it?’
   Discussion about whether we handle the goods we buy, waiting in a
   queue, etc. Emphasize importance of verbal content, clarity of
   expression, gesture, facial expression.

6. ROLE-PLAY
   A shop attendant is chosen, then each person takes a turn at buying
   an article in a shop. Knowledge of money does not matter for this
   particular exercise, but they have to remember to wait for any change.
   Praise is given and any necessary guidance.
7. **GAME**
   The group, with the exception of one member, forms a circle, holding hands. The 'outsider' has to break into the middle. Repeat several times. This should end the group on a good note.

8. **REWARD**
   Refreshments and token.

9. **HOMEWORK**
   Residents are sent to shops. Staff observe.
SESSION 4
ASKING FOR A DANCE

1. NAMES
   Each person tells his name to group, what bungalow he lives in and which shop he visited last week.

2. HOMEWORK FEEDBACK
   How did they get on at the shops? Do they feel any more confident? Do we need to practise this again?

3. GAME
   Passing the Orange. An orange is passed under chins along a line of people. This should break down physical barriers between people.

4. WARM-UP EXERCISE
   Milling around to music, music stops, each person finds a partner.
   (a) Pairs touch each other for 5 seconds (on the shoulders!).
   (b) Look each other in the eyes for 5 seconds.

5. INSTRUCTION AND MODELLING
   Sitting down on chairs, one gets up to ask the other for a dance, e.g.,
   ‘Could I have the next dance with you?’
   ‘Will you dance with me?’
   ‘I would like to have a dance with you.’

6. ROLE-PLAY
   The above is practised in pairs. Praise is given and, where necessary, the person is guided through. Then finish with a dance when each one goes to ask his partner.

7. GAME
   At the group’s request, a game that we have already played and know.
8. **REWARD**
   Refreshments and token.

9. **HOMEWORK**
   Going to a dance at one of the neighbouring hospitals.
SESSION 5

TAKING AND GIVING MESSAGES

1. NAME
   Group sits round in a circle and each member tells his or her name to the others.

2. HOMEWORK FEEDBACK
   How did everyone get on at the dance?

3. GAME
   Shoes in a bag. All take off their shoes and put them in a laundry bag. Then they mill around to music and when it stops each person has to find his own shoes and put them on as quickly as possible, making sure they are on the correct feet!

4. WARM-UP EXERCISE
   Round the circle list.

   First person says to his neighbour: ‘Can you buy me a packet of cigarettes?’
   Second person says to his neighbour: ‘Can you buy me a packet of cigarettes and a box of matches?’
   Third person says to his neighbour: ‘Can you buy me a packet of cigarettes, a box of matches and a newspaper?’

   Each person adding something on to the last. Perhaps two circles to make it easier.

5. INSTRUCTION AND MODELLING
   For example:
   ‘Will you go to the shop and ask for two pints of milk?’
   ‘Mr Jones would like two pints of milk, please.’
   ‘Will you go to the office and tell Mr Smith I will be coming at 4.30?’
   ‘Mr Jones asked me to tell you he will be coming at 4.30.’
   Emphasis on being clear and accurate, also on facial expression.
6. **ROLE-PLAY**
The above is practised in threes in different situations. Praise is given and the person guided if necessary.

7. **GAME**
Dancing in the hoops to finish on a good note.

8. **REWARD**
Refreshments and token.

9. **HOMEWORK**
Liaise with bungalows to let members of the group go on messages around the Unit.
7.3 WORK SOCIAL SKILLS PROGRAMME FOR REHABILITATION OF CHRONIC PSYCHIATRIC PATIENTS

Based on a programme originally designed by Frances D. O’Sullivan, clinical psychologist, Netherne Hospital, Surrey

The programme was designed to prepare people for applying for jobs, job interviews and being at work. It is part of a rehabilitation scheme for chronic patients, mostly schizophrenics, some of whom are nearing discharge from the hospital and others having already been discharged into the community. On average, the group consists of six members of mixed sexes and ages meeting for nine weekly sessions of 1½ hours. Here are two therapists, one male and one female.

The programme has two important features. First, the majority of instruction is given in the form of detailed handouts, written in simple, plain English, each one covering a specific topic area, e.g. non-verbal communication or job applications. Each member of the group receives a handout a week in advance of the session in which those behaviours are to be practised. They are expected to familiarize themselves with the content of the handout which they can then discuss at the next session before proceeding on to the role-plays.

Secondly, the homework assignments are tied in with an individual and group incentive scheme. Each member of the group receives a homework handout (Figure 3) on which are listed the tasks to be practised that week. The first three items remain constant throughout the programme and new items relating to the theme of the session are added week by week. Each person is required to mark off on the handout the degree to which he is coping and the frequency of attempting the task. The therapist then works out the points earned by the patient by averaging the coping scores and multiplying this figure by the actual number of times the task as been carried out that week. The maximum number of points that could have been earned for each task (highest average coping score \( \times \) highest frequency) can be entered in the last column. The total number of points earned by the patient are expressed as a percentage of the total maximum number of points that could have been earned. A target figure of 60 per cent is set for each member each week as the minimum he should attempt to achieve. The weekly percentage figure achieved is plotted on a progress chart which is used to monitor and feedback the weekly progress to the individual patient. The scores of all patients are combined into an average score, similarly plotted, to monitor and feedback to the group.
**HOMEWORK HANDOUT FOR SESSION 2**

**NAME:** Joan Hamble

**DATE:** 4th July

**O/P or IP:** O/P

**WARD/VILLA/UNIT (if IP):** Rehab

<table>
<thead>
<tr>
<th>Weekly tasks</th>
<th>Coping level (5-1)</th>
<th>Frequency (No. of times done in week)</th>
<th>Points earned</th>
<th>Max. points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Practise relaxation exercises morning and evening every day</td>
<td>4 5 4 5 5 5 5 5</td>
<td>X X X X X X X</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>2. Practise coping, positive self-talk before getting up</td>
<td>3 2 3 4 4 4 4 4</td>
<td>X X X X X X X</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>3. Check that personal appearance is as presentable as possible each morning</td>
<td>5 5 4 5 5 5 5 5</td>
<td>X X X X X X X</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>4. Practise walking confidently into a room (min. 5 times/day)</td>
<td>1 2 1 2 2 2 3 3</td>
<td>X X X X X X X</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>5. Practise sitting in a confident relaxed manner (min. 5 times/day)</td>
<td>1 2 1 2 3 3 3 3</td>
<td>X X X X X X X</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>6. Practise shaking hands with eye contact (min. 5 times/day)</td>
<td>3 3 3 3 3 3</td>
<td>X X X X X X</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>7. Practise eye contact when talking and listening (min. 10 times/day)</td>
<td>3 2 3 4 4 4 4 4</td>
<td>X X X X X X X</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>8. Before going to sleep think of at least one positive event</td>
<td>5 5 5 5 5 5 5 5</td>
<td>X X X X X</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

**Other difficult situations:**

9. 1 2 3 4 5 6 7

10. 1 2 3 4 5 6 7

11. 

12. 

| Percentage of maximum = \[
\frac{178}{200} \times 100 = 89\%\] |

Total weekly points = 178/200

**COMMENTS ON MOOD AND EFFORT THIS WEEK:**

TARGET WEEKLY PERCENTAGE: 60%

Signed: Joan Hamble

Figure 3.
SESSION 1

FAMILIARIZATION

therapists introduce themselves to the group and then ask each group
ember in turn to introduce themselves.

plain the rationale of the course and explain operant conditioning
rogramme and how to work the homework sheets by demonstrating
ith examples on the blackboard. Emphasize the importance of doing
e homework assignments every week for consolidation of learning as
ell as reading each handout before the next session to help understand
e principles behind it.

ive out handout for Session 2 (Non-verbal communication particularly
related to job situation).

phasize the importance of group cohesiveness, i.e. commitment to
e group as a whole rather than seeing themselves as a collection of
dividuals — punctuality and regularity of attendance essential, etc.

swer queries.
SESSION 2

SHOWING CONFIDENCE

1. Apologies for absence last week.

2. Reinforce starting on time and level of attendance, if applicable.

3. Positive event reporting from each group member.

4. Explain briefly the principles of anxiety management (reciprocal inhibition) and discuss useful brief exercises such as deep breathing, coping self-talk (talking oneself into something rather than out of it), importance of non-avoidance of anxiety-provoking situations. Give handouts for relaxation exercises (complete version).

5. INSTRUCTION
   Any queries from last week’s handout on non-verbal communication? Brief discussion if necessary. Introduce use of eye contact and posture to give confident manner and stress the importance of this in the first 2-3 minutes of an interview.

6. ROLE-PLAY
   Each member practises, as if at an interview, coming into the room in a confident manner, shaking hands with eye contact and sitting down in a relaxed, confident manner in front of the interviewer after appropriate modelling by the therapists. No words spoken apart from time of day greeting and self-introduction. Group feedback for each performance.

7. Brief discussion on how one can ‘give oneself away’ or project an air of confidence before a word is said. This is vital in setting up a positive atmosphere from the start of an interview. If you behave confidently you will feel more confident.
8. **HOMEWORK HANDBOOK**
   Homework handout sheet (see example) is given out together with operant conditioning therapy handout for guidance.

9. **INSTRUCTION HANDBOOK**
   Instruction handout for next week's session given out (Vocal expression).

0. Thanks for attendance. Close group session.
SESSION 3
VOCAL EXPRESSION

1. Explanations for any absences last week.

2. Reinforce starting on time and level of attendance, if applicable.

3. Positive event reporting from each group member.

4. HOMEWORK FEEDBACK
   Homework sheets collected. Feedback — deal with any queries/problems. For example, did they manage to relax properly? Give handout of short relaxation exercises.

5. INSTRUCTION
   Any queries from last week’s handout on vocal expression? Discussion of the importance of voice cues in communication.

6. WARM-UP EXERCISE
   Give rationale, provide model for group and then in pairs, each person takes it in turn to recite numbers in different ways to express different emotions, e.g. anger, excitement, depression, interest, boredom, friendliness, etc.

7. ROLE-PLAY
   At work in the coffee break one person reading items of news to another. Therapist models reading a short newspaper item once badly and then appropriately with suitable expression. Each member of the group reads the item of news provided to the others trying to convey the appropriate emotion and emphasis. Group give feedback on clarity, tone, pitch and speed.

8. Short open discussion of the points raised and learnt from exercises and role-playing.
9. **HOMEWORK HANDOUT**
   In addition to practising the relaxation tasks, etc. each member has to select an item from the newspaper each day and practise reading it aloud, putting in the appropriate emphasis and tone, etc. If possible members would benefit from recording it on tape and listening to the playback to give extra feedback, otherwise they will have to have the co-operation of a relative or friend as a critical listener.

0. **INSTRUCTION HANDOUT**
   Instruction handout for Session 4 given out (Conversation — opening, maintaining and closing).

1. Thanks for attendance. Close group session.

2. **INDIVIDUAL FEEDBACK**
   Private feedback on previous week’s homework given to each member.
SESSION 4

CONVERSATION

1. Explanations of absences.

2. Reinforce starting on time and level of attendance, if applicable.

3. Positive event reporting by each member of group in turn.

4. HOMEWORK FEEDBACK
   Homework sheets collected. How did everyone get on? Answer any queries and deal with any problems arising from homework.

5. INSTRUCTION
   Queries from last week's handout on starting, maintaining and ending conversations. Discussion of starting conversations in the canteen at work.

6. ROLE-PLAY
   In the canteen at work. One person joins a table with others at it and starts a conversation with the person next to him. Modelled by therapist followed by each member of the group taking a turn in initiating conversation. Feedback on appropriateness of opening remark and vocal expression.

7. INSTRUCTION
   Discussion of listening, speaking and taking turns in conversation.

8. ROLE-PLAY
   Previous situation, but with conversation continuing for one minute. Modelled first by therapist.
9. **INSTRUCTION**
   Discussion on ending conversations.

10. **ROLE-PLAY**
    Previous role-play which is brought to an appropriate end. Modelled and then each member taking it in turns.

11. Short discussion on the points learned from the role-plays on conversation.

12. **HOMEWORK HANDOUT**
    Each member is to initiate and hold a conversation with another person at least once each day.

13. **INSTRUCTION HANDOUT**
    Instruction handout for Session 5 given out (Job applications). Notes on telephone and letter applications as well as a sample application form to complete with instructions on how to do so.


15. **INDIVIDUAL FEEDBACK**
    Private feedback on previous week’s homework given to each member.
SESSION 5

APPLYING FOR A JOB

1. Explanations of any absences.

2. Reinforce starting on time and level of attendance, if applicable.

3. Positive event reporting by each member of the group in turn.

4. HOMEWORK FEEDBACK
   Give names of those who achieved their target percentages last week but do not mention any figures. Hand out individual graphs and read out group average. Encourage those who did badly last week to make more effort this week. Answer any queries and deal with any problems arising from homework last week. Emphasize the importance of doing the homework if progress is to be made and consolidated.

5. INSTRUCTION
   Any problems/queries from last week’s handout? Brief discussion if necessary.

6. ROLE-PLAY
   Using internal phone and tape-recorder, model telephoning for an application form/interview appointment — first badly with feedback from the group and then appropriately with positive and negative feedback from the group, on
   (a) clarity,
   (b) confidence,
   (c) brevity but with politeness,
   (d) overall air of efficiency and competence.

   Each member of the group then takes it in turn to role-play telephoning
   (a) for an application form if post is still vacant,
   (b) for an interview appointment.
7. Short discussion of the points raised and learnt from experience as well as from exercises.

8. Collection of graph sheets for recording this week’s figures. Group graph to be pinned on the wall. Emphasize that effort is needed from everyone in order not to let the group down.

9. **HOMEWORK HANDOUT**
   Practise writing ‘dummy’ letter for application form/interview.

10. **INSTRUCTION HANDOUT**
    Distribute instruction handout for Session 6 (Job interviews).

1. Thanks for attendance. Close group session.

2. **INDIVIDUAL FEEDBACK**
    Private feedback on previous week’s homework given to each member.
SESSIONS 6 AND 7

JOB INTERVIEWS

1. Explanations for any absences.

2. Reinforce starting on time and level of attendance, if applicable.

3. Positive event reporting by each member.

4. Collection of last week's homework sheets.

5. HOMEWORK FEEDBACK
   Those members who achieved the target percentage last week (or above the target figure) are reinforced with praise. Others need to make a more consistent effort by finding a sympathetic relative or friend to practise role-playing sessions/exercises, etc. (Individual feedback at the end of the group.)

6. Group average graph. Pin the chart on the wall and indicate with drawing pins and coloured rubber bands where the group is at in its progress. (Take it down at the end of the session.)

7. INSTRUCTION
   Any queries/problems with last week's handout on technique of job interviews? Brief discussion if necessary.

8. ROLE-PLAY
   (a) Bad models of how not to behave at interviews — i.e.
       (i) too timid,
       (ii) too aggressive and cocky.
(b) Good model, demonstrating the following characteristics:
   (i) quiet confidence,
   (ii) politeness combined with businesslike approach,
   (iii) interest (eye contact): listening skills as well as ability to talk.
   (iv) knowing when to end the interview and appropriate leave-taking.

Half the group to role-play being an interviewee with positive and negative feedback from the rest of the group.
Ask if any members would like to role-play the boss to know what it feels like to be on the other side of the fence.

9. Discussion with the half of the group who have been role-playing of any real-life interviews they have had and what they have learnt from them.

10. **HOMEWORK HANDOUT** (For the next two weeks: answer any queries arising)
    Homework handout given for the next two weeks. Includes consolidation of previously learned skills plus constructing and rehearsing a list of positive assets an employer could be offered.

11. **INSTRUCTION HANDBOOK**
    No further instruction handout for Session 7 (Job interview technique).
    Other half of the group who have not taken part in the role-play this week to be prepared to role-play mock interviews in the next session.
    In Session 6 handout for Session 8 (Assertive behaviour, concerned with expressing feelings, first day at work, dealing with an unsympathetic boss or workmate and refusing unreasonable requests).

12. Thanks for attendance. Close group session.

13. **INDIVIDUAL FEEDBACK**
    Private feedback on previous week’s homework given to each member.
SESSION 8

ASSERTIVE BEHAVIOUR

1. Explanations for any absences.

2. Reinforce starting on time and level of attendance, if applicable.

3. Positive event reporting by each member.

4. Collection of last week’s homework sheets.

5. HOMEWORK FEEDBACK
   Refer to group average graph, and give feedback.

6. INSTRUCTION
   Any queries/problems from last week’s handout?
   Discussion on last week’s handout as it applies to everyday situations,
   e.g. complaining about cold food in a canteen/restaurant; taking a
   defective article back to a shop; correcting someone when they mis­
   represent what you have said or else have given false information,
   etc.

7. ROLE-PLAY (Time for good models only)
   Model how to cope with the following:
   (a) Refusing an unreasonable request (e.g. refusing to work through
       the lunch-hour when it is not an unavoidable emergency but is
       caused by the inefficiency of another staff member).
   (b) An aggressive foreman/supervisor (e.g. refusing to accept your
       reasonable excuse for being late or else getting impatient when
       you ask a second time how to carry out a task).
   (c) Taking a defective article back to a shop (e.g. faulty shoes, etc.).
   (d) Sending back a cold or unsatisfactory meal in a canteen/restaurant.
   Get the group in turn to pair with one of the therapists and practise
   any one of the above situations.
8. **HOMEWORK HANDBOOK**
Practise assertive behaviour including positive assertion of opinion, making decisions and refusing an unreasonable request (if applicable).

9. **INSTRUCTION HANDBOOK**
Distribute instruction handout for Session 9.

10. Information about the final session next week. There will be no role-playing. The session will consist of answering queries about the tax handout, working out a model weekly budget on the blackboard, post-treatment assessment questionnaires and filling in feedback questionnaire on the course followed by final homework feedback to each individual group member in turn.

11. Thanks for attendance. Close group session.

12. **INDIVIDUAL FEEDBACK**
Private feedback on previous week's homework given to each member.
SESSION 9

MONEY MANAGEMENT

1. Explanations of any absences.

2. Positive event reporting by each group member.

3. Homework feedback. Draw attention to group average on chart. Need for everyone to carry out their homework assignments.

4. Welcome tax adviser. Discussion about last week’s handout. Tax adviser available to answer any queries or problems arising therefrom. Handouts to be given to any members absent last week.

5. Give out new handout on weekly budgeting. When every member has read the handout discuss it and answer any queries arising.


7. Ask each member in turn what they thought was the most significant thing they got out of attending the group.

8. Thanks for attendance and close the group session.

9. Individual homework feedback for each member of the group.
7.4 AGGRESSION MANAGEMENT PROGRAMME FOR YOUNG OFFENDERS IN CUSTODY

Developed from a programme devised by Adrian Neil and Christine Curle, prison psychologists, Portland Borstal.

The programme consists of eight weekly sessions, each lasting approximately 2 hours. It was designed for six or seven borstal trainees (young male adult offenders) and two trainers.

The trainees selected for the programme had frequently been in trouble for aggressive behaviour in the borstal and also might have acted violently outside the institution, although they had not necessarily been convicted of offences involving violence. The programme aims to teach alternative strategies of behaviour which can be applied to a variety of situations; individual training in relaxation and tension control as related to loss of temper and aggression can be undertaken at the same time.
SESSION 1

INTRODUCTION

1. INTRODUCTION
Co-leaders introduce themselves to the rest of the group and ask members to do the same.

Explain rules of the group:
(a) no physical violence,
(b) freedom of expression and confidentiality of what is said in the group,
(c) the phrase 'I can't' is not allowed in the group; everyone is expected to try things out.

Discuss the need to look in detail at situations which cause anger and loss of temper and how the group can help by sharing common experiences and finding solutions.

Explain that the group requires active involvement and uses role-play to try out different ways of behaving in order to see what their effects are.

Stress the importance of practising what is learnt in each session during the rest of the week and say that each following session will start with feedback about how members have been getting on.

2. INSTRUCTION
‘When violence occurs it is almost always the result of interpersonal situations getting out of hand — it hardly ever arises out of the blue. The purpose of the group is to look at how this may occur and to work out better ways of handling problems or minor disputes so that the situations don’t build up until the only possible outcome is violence.’

Look at different ways of handling potentially violent situations. Model submissive, aggressive and assertive behaviours in this type of situation. Get the group to identify components of assertive responses in terms of non-verbal and verbal behaviours.
3. **PRACTICE (Homework)**
   
   (a) Observe someone behaving too aggressively or too submissively. What is it that gives that impression?
   
   (b) Fill in on the sheet problem situations (Figure 4) that have occurred recently (e.g. within the past two years). Give as many details as possible. Bring them back to discuss next week.

   **PROBLEM SITUATION SHEET**

   Where?

   When?

   Who else was involved?

   What happened?

   Figure 4.
SESSION 2

HOW VIOLENCE HAPPENS — 'DEFUSING' A POTENTIALLY VIOLENT SITUATION

1. INTRODUCTION
Reinforce members for attendance (indicates that they have not been in serious trouble since the last session).

Feedback of events in the past week. Each member reports on incidents, particularly those involving potential or actual violence, and how they handled them. Other members (or co-leaders) make comments or suggestions for alternative behaviours.

Practice reports. Check that members have completed the problem situation forms and help with any difficulties.

2. INSTRUCTION
Get each member to read out what he has written on his form. Others can ask for further details or clarification. Common themes (i.e. factors which trigger off violence or loss of control) are written up on a blackboard.

'Why do people become involved in violent situations?' Draw out possible reasons, referring to common themes already recorded, e.g. gaining a reputation as a 'hard man', defending a reputation, self-defence (seeing other people as dangerous), getting rid of pressures or tension, bullying (gaining pleasure from violence), exploitation (using it as a means to an end).

Some of the themes are role-played by the group (as they happened but stopping short of physical violence!). Situations are taken from the forms or from recent events in the borstal (e.g. being unable to back down from a challenge or losing face in front of mates).

Identify non-verbal signs of aggression (facial expression, posture, gestures) verbal behaviour (provocative words which lead to escalation rather than cooling the situation). Discussion of the consequences of violence and alternative strategies to prevent those situations becoming violent.
3. **ROLE-PLAY**  
**Situation.** The same themes are taken again, but this time handled in a non-aggressive manner.  
**Procedure.** Role-play in sub-groups, if necessary practising in a corner of the room before repeating in front of the rest of the group. Co-leaders help out or initiate as appropriate. Feedback from members not involved in each scene and from video.

4. **PRACTICE**  
(a) Observe the sort of ‘violence behaviours’ you and other people engage in. Report back next week on some situations and how they built up.  
(b) If situations you are in seem likely to ‘blow up’, practise new behaviours to diffuse the situation.
SESSION 3

DEALING WITH CRITICISM

1. INTRODUCTION
   Reinforce members for getting to the group.
   Feedback of incidents in past week.
   Practice reports.

2. INSTRUCTION
   'Criticism is a normal part of life (e.g. your parents get on at you for being unemployed/in trouble; the boss calls you in to talk about being late; you are being blamed for something which was not your fault). If the situation isn't handled properly it may make you overreact and feel provoked into violence (either verbal or physical).'

   Elicit from the group the usual ways of dealing with criticism — denial, defensiveness, retaliation. 'The trouble is these just lead to arguments which drag on or build up and, if neither side will back down, the situation can get out of hand.'

   Explore how criticism usually makes a person feel — anxious, angry or guilty. 'Consequently, you will not behave in a calm or confident way, you may say or do the wrong thing or get stuck for words. In any case, you probably will not learn from your mistakes, will put people off or put yourselves down.'

   'If criticism is fair, it's best to get matters out in the open, to accept and acknowledge it by agreeing and coming to some workable compromise. Likewise, if the criticism is unfair, instead of reacting in a negative way, it is better to discuss it openly and calmly, trying to distinguish fact from opinion and feeling.'

   Model to show that it is possible to agree with whatever truth there is in the criticism without being submissive; also, how manipulative criticism can be extinguished by drawing it out into the open.
3. **ROLE-PLAY**
   **Situation.** Being criticized fairly then unfairly by staff and then by peers.
   **Procedure.** Practised in pairs and presented to the group for feedback.

4. **PRACTICE**
   (a) Observe how other people deal with criticism — what are the consequences?
   (b) Practise dealing with criticism — how does it work out?
1. **INTRODUCTION**
   Reinforce members for attendance.
   Feedback of incidents in past week.
   Practice reports.

2. **INSTRUCTION I (Making requests)**
   Focus on those situations where someone is standing in the way of what you want, e.g. asking someone to move a car which is blocking a pub car park; asking someone to turn down the volume on a record player; asking someone in a phone box to hurry up. Discuss and elicit from the group various ways of handling these situations (and their respective outcomes) in terms of assertive rather than aggressive behaviour, e.g. firm tone of voice, looking the other in the eye, clear verbal message. Model.

3. **ROLE-PLAY**
   **Situation.** Members choose from a previously drawn up list of situations in which assertive behaviour is appropriate.
   **Procedure.** Practised in pairs and presented to the group for feedback.

4. **INSTRUCTION II (Accepting orders)**
   Elicit from group types of situation. 'It is essential to be able to identify those situations in which it is important to accept and carry out the order without questioning because any other action would lead to undesired consequences, such as dismissal or loss of privileges. In other situations, where the order is unreasonable or for some reason the person may be unable to carry out the order, it may be necessary to engage in negotiation.' Discuss verbal and non-verbal responses in these situations and model appropriate responses.

5. **ROLE-PLAY**
   **Situations**
   (a) Being given an order at work where it is important to comply even though you don't want to.
(b) Being told to do a job when it's your lunch break.

**Procedure.** Practised in pairs and presented to the group for feedback.

6. **PRACTICE**

(a) Observe how other people make requests. Practise making requests as suggested; pay particular attention to the outcome.

(b) Practise accepting orders in a way which is neither aggressive nor submissive.
SESSION 5

PEER GROUP PRESSURE

1. INTRODUCTION
- Reinforce members for getting to the group.
- Feedback from events of the past week.
- Practice reports.

2. INSTRUCTION I (Saying no)
'Others can sometimes put pressure on you to do things that you don't necessarily want to do and which may get you into trouble, e.g. your mates are out looking for a fight but you've just come out of borstal and don't want trouble. Look at the ways people put pressure on — calling you a coward, a lousy friend, pointing out the benefits but not the bad consequences such as getting caught. Saying no involves standing up for yourself without getting into a fight or crawling away.' Discuss the behaviours involved.

3. ROLE-PLAY
- **Situation.** Group members identify situations involving peer group pressure either from the past or which are likely to occur when they get outside.
- **Procedure.** Set up in small groups, practised and presented to whole group for feedback.

4. INSTRUCTION II (Teasing)
Discussion with group about teasing, why people do it, how it makes the person feel, how he reacts, and how these situations can escalate into violence. Usually the person does it to get a reaction, and if he gets it he has 'won'. Look at appropriate ways of responding so that the person does not feel the other has got the better of him, such as ignoring the person or his remarks, avoiding provocative language, leaving the situation, making a joke.
5. **ROLE-PLAY**  
**Situation.** Being teased by peers, situations selected by individuals.  
**Procedure.** Practised in twos or threes and presented to the group for feedback.

6. **PRACTICE**  
(a) Identify situations where you feel under pressure from your peers to do something you don’t really want to do. Practise saying no.  
(b) If you are being teased, try suggested behaviours.
SESSIONS 6, 7 AND 8

These sessions are devoted to individual work on any of the members' specific difficulties, or some of the following themes might be taken as appropriate.

ROLE PLAYS FOR NON-AGGRESSIVE BEHAVIOUR

Problems at home (Family or girlfriend)
1. Girlfriend/wife stays out without saying where she is.
2. Your brother has broken something of yours.
3. You arrive home drunk.
4. Your girlfriend has been seen out with another bloke.
5. Another bloke has been bothering your girlfriend.
6. Your parents get on at you for being unemployed/in trouble.
7. Your parents don't like your girlfriend.

Problems at work
1. Workmate makes fun of you.
2. Boss or supervisor gives you orders.
3. Boss calls you in to talk about being late.
4. There has been an accident at work which isn't your fault and the boss blames you.

Problems with friends
1. Your mates are out looking for a fight, but you've just come out of borstal and don't want trouble.
2. Your mate gets into a fight in a pub.
3. You are stopped from getting into a club by the bouncer.
4. One of the 'chaps' in your town has heard that you've just got out of borstal and wants to see how 'tasty' you are.

Problems in borstal
1. Taking orders from a young officer.
2. Making a request from an officer, for example asking for a letter or about your board.
3. Being wound up by other trainees in the house.

Problems with the police
1. Told to move on by a policeman when arguing with a friend in the street.
2. Stopped by the police when driving.
3. Stopped by police in the street.

If the situation is relevant to the whole group then the procedure is the same as in previous sessions, i.e. instructions are given and the members practice before presenting to the group for feedback. If it is a problem for just one individual, the group can be involved in providing suggestions and setting the scene. Practice should be related to each session.
7.5 HETEROSOCIAL SKILLS TRAINING PROGRAMME FOR A SHY MALE

Based on a programme devised by Andrea Edelianu, clinical psychologist, Brookwood Hospital.

These sessions were originally developed as part of a psychotherapeutic programme for a 22-year-old man. The aim of the sessions was to provide him with the skills to help him develop his relationship with a female colleague with whom he played squash once a week.

The training was carried out on a one-to-one basis in five sessions of approximately half an hour held at fortnightly intervals.

Although the trainer would have a general outline of such a programme before training commenced, the details of each session would be worked out as training progressed so as to be relevant to the particular circumstances at the time.
SESSION 1

DEVELOPING THE RELATIONSHIP

1. INSTRUCTION
   Expressing interest/affection through posture, facial expression, tone of voice, eye contact, gesture and discrete touch and checking out her reaction. Model.

2. ROLE-PLAY
   After squash game, coming out of court hand on her shoulder, looking at her, congratulate or commiserate affectionately.

3. HOMEWORK
   Repeat role-play in vivo.
SESSION 2

ASKING OUT AND BEING ON A DATE

1. **INSTRUCTION I (Asking out)**
   Discuss various ways of asking her out, e.g. checking out the kind of activities she enjoys before actually asking, asking directly, asking her to join him with other friends in a pub. Stress getting the message clear and warm tone of voice. Discuss recovery strategies if she says ‘no’.

2. **ROLE-PLAY**
   As previous week, this time adding ‘There’s a good film on at the Odeon next week, would you like to go one evening?’

3. **INSTRUCTION II (After the film)**
   Discuss ways of developing the conversation from general to more personal topics. Self-disclosure of feelings. Observing the other’s reaction and judging how self-disclosure is received.

4. **ROLE-PLAY**
   After the film. Taking about self. Expressing a liking for her company and a wish to get to know her better. Arrange another meeting.

5. **HOMEWORK**
   Practise role-plays in vivo.
SESSION 3

EXPRESSION OF PHYSICAL ATTRACTION: DEVELOPING A SEXUAL RELATIONSHIP

1. INSTRUCTION
   Using visual materials and modelling discuss developing the physical aspects of the relationship; kissing and fondling, leading to more intimate exploration. No role-play this session!

2. HOMEWORK
   On next date say goodnight with a kiss and light embrace.
SESSION 4

BECOMING MORE INTIMATE

1. INSTRUCTION
   Discussion about developing the relationship further through conversation. For example, talking about feelings for the other person, what they enjoy about the relationship, views about other relationships, past experience, sex and contraception as well as sharing attitudes about matters of personal importance.

2. ROLE-PLAY
   On a date, in a quiet corner of a pub, tell her how much he is enjoying her company and how good she makes him feel.

3. HOMEWORK
   Practise role-play in vivo.
SESSION 5
CONSOLIDATING THE RELATIONSHIP

1. INSTRUCTION
Discussion about agreeing on the nature of the relationship, how much time to spend together, likes and dislikes about each other, giving support and encouragement, being open and frank, dealing with arguments and criticism and making compromises.

2. ROLE-PLAY 1
Girlfriend criticizes you for spending too much time with your friends who she doesn’t particularly like.

ROLE-PLAY 2
You want to watch the match on television, she wants to go to the cinema.

ROLE-PLAY 3
She has had a disappointment (not got promotion) and is feeling low.

3. HOMEWORK
Practise as appropriate.
References


Social Skills Training is a rapidly developing field and its applications are many and varied. This book is intended for those using or hoping to use this method with their particular clients.

It is a practical course which takes the reader through the various stages of training concentrating on the three major activities involved—assessing the specific social skill problems, designing programmes to meet the needs of individual clients, and managing and running the training. It demonstrates the flexibility of Social Skills Training for a wide range of problems, for a variety of purposes, and for different populations and settings. Although the methods used are based on a particular theoretical approach, the manual has been written so that it can be used by professionals from a variety of backgrounds with no specific knowledge of the field.

About the authors

JILL WILKINSON practises as a psychotherapist and is currently actively engaged in research in social skills at the University of Surrey. She is also involved in the training of health care professionals through the Professional and Therapeutic Skills Training Group which she and Sandra Canter established and co-direct at the University of Surrey.

SANDRA CANTER’s career has combined clinical practice in the NHS with university teaching and training clinical psychologists and other health care professionals. She has written a number of books and articles related to the practice of psychology.

Contents: Preface; 1 Social Skill and Social Skills Training; 2 Social Behaviour; 3 Assessment for Social Skills Training; 4 Basic Training Methods; 5 Designing Social Skills Training Programmes; 6 Preparation for and Management of Social Skills Training; 7 Social Skills Training Programmes
DEVELOPMENT OF PROCEDURES FOR THE ASSESSMENT OF WORK-RELATED SOCIAL SKILLS FOR REMITTED SCHIZOPHRENICS.
(in progress)

S. Canter, J. Wilkinson.
Department of Psychology, University of Surrey

INTRODUCTION

Over the last ten years there has been a change of emphasis from hospital care of schizophrenics to community care and rehabilitation. If this is to be more than just a change of location from hospital to home then it must involve integration of the schizophrenic into society on many levels. Employment is particularly important in this respect, not only in providing work but in giving opportunities for social and personal development and fulfillment.

The ability of normal individuals to obtain and maintain stable employment has been found to depend on two primary factors: job skill and interpersonal skill (ITRU, 1977). In the case of schizophrenics, opportunities for personal satisfaction and self esteem arising from social and interpersonal functioning have been found to be more important than just the ability to do the job (Griffiths 1973, Shepherd 1981). In a detailed longitudinal study of a group of schizophrenic rehabilitees, Watts (1978), using the Griffiths work rating scale, found keenness to work and social functioning, in terms of relationships with peers and supervisors, more useful than task performance in predicting future employment resettlement (in work six months or more). This is in agreement with the earlier reports of Griffiths (1973).

In the past, work training of normal people has concentrated on job
skill but there is an increasing recognition of the need to combine this with training in social skills (Argyle, 1982). The person who is socially competent and effective will be perceptually sensitive to others, possess a repertoire of social behaviour, be flexible and able to initiate and maintain a smooth two way flow of communication (Trower et al, 1978). The person who has a severe lack of appropriate social skills in a work situation will be at a serious disadvantage in both obtaining and maintaining successful employment.

Schizophrenics have very specific and often severe problems in interpersonal functioning. Wing (1978) emphasised the chronic social impairment which may follow an acute phase of schizophrenia, "The most severely impaired person can convey little information through the use of verbal and non-verbal language, the facial expression is wooden, the voice is monotonous, the body posture and gait is stiff, little use is made of gesture, words are few and may convey little meaning" (p.11). Consequently work rehabilitation programmes for schizophrenics aimed at job training only, as is the current practice have a limited possibility of success (Shepherd, 1981, Wansbrough & Cooper, 1980). Training should not only be concerned with job skill to improve work competence (as in most rehabilitation programmes) but also with social skills in order to promote better communication and cooperation with other people and thus improve social and working relationships. The application of the social skills model (see below) to job training programmes for schizophrenics is a unique approach, giving a new perspective on our understanding of schizophrenia and the rehabilitation process. It will increase considerably the success of such job training programmes as well as further our knowledge of the function of such skills in the work situation.
SOCIALS SKILLS AND SCHIZOPHRENIA

The Social Skill Model
In the last few years social skills training programmes have been developed as a systematic way of teaching the skills of social interaction to those with identifiable social skill problems (Bellack and Hersen, 1979). Social skills training is based on a model of social behaviour, originally proposed by Argyle & Kendon (1967), which conceptualises man as pursuing social goals, acting according to rules and monitoring his performance in light of feedback from the environment (Trower, Bryant and Argyle, 1978). Much recent work has emphasised the role of cognition in relation to social skill, e.g. Spence & Shepherd (1982). The process of interaction would seem to involve the individual's cognitive schema, his social knowledge, the planning of actions, social behaviour (verbal and non-verbal) and the perception and interpretation of the other's response (feedback). All of these aspects of the social skill process may be impaired by schizophrenia (Curran and Monti, 1982).

Social Impairment and Schizophrenia
According to the social skill model the schizophrenic may have social skill deficits for a number of reasons:

a) Inadequate development of skills due to the early onset of the disorder resulting in social withdrawal and limited social opportunities (Phillips, 1953) and/or due to deviant family communication and poor parental models (Wynne and Singer, 1963).
b) The impairment of existing skills by factors directly associated by the disorder itself.
Failure can occur at any stage of the social skill cycle and this can lead to a worsening spiral of events of progressively inappropriate responses, bizarre or unacceptable social behaviour, the result of which may be greater anxiety and withdrawal. Furthermore, any serious interruption or continuous impairment of social skill may necessitate some re-learning of skill, but the schizophrenics learning ability may also be impaired (Rodnick and Garmezy, 1957). In addition he may return to and have to cope with a critical environment (Whately, 1968, Vaughn and Leff, 1976) or one in which there is a high degree of communication deviance (Wynne and Singer, 1963).

Schizophrenics therefore will have very specific problems in interpersonal functioning and any work training scheme should be designed to take this into account. To date employment rehabilitation schemes for schizophrenics have concentrated almost exclusively on the task aspect of the job and have been of limited success. As stated above, being able to obtain and maintain stable employment has been found to depend on the two factors of job skill and interpersonal skill. It follows that any work training scheme for schizophrenics should include systematic training in interpersonal as well as task skills.

In order to design, monitor and evaluate the interpersonal aspects of work training programmes it is necessary to be able to identify:

a) The relevant social skills necessary to a particular interaction in a given situation (in this case the work situation). These may range from skills needed in informal situations such as chatting to work mates in the canteen to those required for the job itself, such as
dealing with a customer's complaint or giving instruction to a
subordinate.
b) The specific social skill deficits of the schizophrenic in that work
situation. Our knowledge of particular social skills is developing,
although the research in relation to work has been confined to the area
of management and teaching skills (Argyle, 1982). Moreover in
developing methods of assessing social skill deficits the emphasis to
date has been on the evaluation of the behavioural aspect of the
interaction process. Assessment of the perceptual and cognitive
components of social skill has been less well developed. In order to
obtain information relevant to the work situation it is necessary to
develop assessment procedures that will encompass all the major aspects
of the social skill process from sensitivity to others (such as
recognising customers' needs in a selling situation) to social
behaviour (such as being able to ask questions to obtain information
before answering a particular request).

Much of the research on the cognitive aspects of social skill has been
undertaken without consideration to any comprehensive model of social
functioning and there has been little attempt to examine in a
systematic way the relationship between the various cognitive aspects
of social skill described above in relation to specific situations.

AIMS OF THIS STUDY
The aims of this study therefore were to:
1) Identify the interpersonal situations occurring at work.
2) Develop procedures to examine the various components of the social
skill process in relation to those specific situations. This would
involve procedures to assess:
i) Cognition relating to the situation(s)
ii) Perception of the situation(s)
iii) The capacity to generate solutions to the situation(s)
iv) The individual’s goal in the situation(s)
v) The behavioural response in the situation(s)

STAGE 1
SELECTION OF SITUATIONS
Observation and interviews were carried out in four different work environments: a bookshop, a factory, a warehouse and a department store. A list of interpersonal situations was then compiled and subsequently classified into types of situation. These situations were then presented in questionnaire form to supervisors and workers in a variety of work environments, who were asked to rate their relative importance to the job (or that of their workers).

The eight items which were considered most important formed the basis for the assessment instruments.

STAGE 2
DEVELOPMENT OF THE TESTS
The items in the questionnaire were in the form of general statements, e.g. discussing work with the supervisor. In order to make these more specific the original observational data (from which the statements had been selected) was referred back to and more complex situations developed from these.
Test of Cognitive Schema
The situations were presented verbally to a pilot group of ten students who were asked to generate thoughts in the form of statements in response to the situations. The ten final statements selected for this test were selected from these and also with reference to the literature on cognitive self-statements (see appendix .). The subjects were subsequently presented with this list (the same list was used for all situations) and asked to tick any which might apply to them in the situation.

Social Perception Test
The selected scenes were enacted and videotaped in such a way that the subject would see, on the video monitor, the situation as he would encounter it, e.g. if he is being asked by the supervisor to have a talk about how he is getting on, he sees the supervisor asking him how he is getting on. For some situations, two versions were made, e.g. with the supervisor being friendly in one and cross in another. These video scenes were then presented to a different group of eight students who were asked to generate adjectives to describe the people involved in the scenes.

Six adjectives and their opposites were selected for each person in the eight scenes (see appendix .) and these adjectives subsequently presented to the subjects who were asked to assess the people in the scenes along the selected dimensions.

Social Problem Solving, Social Goals
These same eight pilot subjects were asked to list all the possible things they would do in the respective situations and rate how
appropriate each one would be. This list formed the guidelines for judging the appropriateness or otherwise of the subsequent responses of the schizophrenics.

The final questionnaire (see appendix) requested that the subjects stated alternatives, selected the one which they considered to be the 'best' one (their ideal goal) and also what they would actually do (their actual goal). They were also asked to state what they thought the consequences of each would be.

**The Behavioural Response Test**

The role-play tests were worked out so that the person the subjects had seen on video was the same as the person with whom they were required to interact with in the role-played scenes.

In this way the tests were developed so that the subjects could be presented with a situation (written) and an assessment made of their cognitions about that situation. It would then be presented to them visually and their perceptions of the person or people in it could be assessed, as well as their problem-solving abilities and goals (ideal and actual). By using the same situation and people in role-play their behavioural response could be assessed and analysed in relation to the other variables involved (i.e. perception, cognition etc.) and a more complete picture obtained of the functioning of the schizophrenic at every stage of the social skills cycle.
REFERENCES (WORK SOCIAL SKILLS STUDY)


Rodenick & Garvey, (1957). 'An experimental approach to the study of motivation in schizophrenia' in M. Jones (Ed.) Nebraska Symposium on Motivation, University of Nebraska.


**SCENE 1**

You work in a workshop that makes kitchen cabinets. Your supervisor is fairly strict about punctuality and expects you to report to her when you arrive at work. You are 5 minutes late, but you have an excuse. When you arrive in the workshop your supervisor is talking to the manager of the department.

**PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.**

- This situation should be fairly easy to deal with
- The other person will probably misunderstand me
- This is the kind of situation I usually try to avoid
- The other person will probably think I'm alright
- I might say the wrong thing
- I'm not sure what to do or say
- I'll probably cope alright
- The other person will probably understand me
- This will probably be difficult to deal with
- This is the sort of situation I quite enjoy
- The other person might think badly of me
- I'm fairly sure how to handle this

**PLEASE DO NOT PROCEED TO THE NEXT SECTION UNTIL YOU HAVE SEEN THE VIDEO.**

Below are a number of words which may be used to describe the person you have seen in the video. After each scene please put a cross on the line to describe how you see the person in question.

**E.G.**

<table>
<thead>
<tr>
<th>VERY: QUITE:A BIT: IN</th>
<th>A BIT:QUITE:VERY:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN:</td>
<td></td>
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</tbody>
</table>

**SCENE 1a**

<table>
<thead>
<tr>
<th>Available</th>
<th>Occupied</th>
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<tbody>
<tr>
<td>Friendly</td>
<td>Hostile</td>
</tr>
<tr>
<td>Formal</td>
<td>Informal</td>
</tr>
<tr>
<td>Relaxed</td>
<td>Tense</td>
</tr>
<tr>
<td>Dominant</td>
<td>Submissive</td>
</tr>
<tr>
<td>Rigid</td>
<td>Flexible</td>
</tr>
</tbody>
</table>

'AS THIS BECAUSE OF:(Please tick) What was said THE PERSON'S
osture or walk THE FACIAL EXPRESSION TONE OF VOICE
SCENE 1a

List all the things you could reasonably do in this situation.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

What do you think would be the best thing to do in this situation?

What would you hope to achieve by doing this?

What do you think you would actually do?

What would you expect to achieve by doing this?
<table>
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<tr>
<th>Trait</th>
<th>Dominant</th>
<th>Rigid</th>
<th>Relaxed</th>
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<th>Occupied</th>
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<td>Submissive</td>
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<td>Available</td>
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<td>Informal</td>
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</tbody>
</table>

WAS THIS BECAUSE OF: (Please tick) What was said _ The person's posture or walk _ The facial expression _ Tone of voice _
SCENE 1b

List all the things you could reasonably do in this situation.

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

What do you think would be the best thing to do in this situation?

What would you hope to achieve by doing this?

What do you think you would actually do?

What would you expect to achieve by doing this?
SC/SP

SCENE 2

You've been working in the stock room of a firm for about a month when the supervisor calls you into her office to discuss how things are going. On the whole they are going fine, but there are one or two things you have problems with — for example, one of the other workers constantly tells you to do things differently from how the supervisor has told you.

PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.

This situation should be fairly easy to deal with __

The other person will probably misunderstand me __

This is the kind of situation I usually try to avoid __

The other person will probably think I'm alright __

I might say the wrong thing __

I'm not sure what to do or say __

I'll probably cope alright __

The other person will probably understand me __

This will probably be difficult to deal with __

This is the sort of situation I quite enjoy __

The other person might think badly of me __

I'm fairly sure how to handle this __

________________________________________

________________________________________

________________________________________

________________________________________

PLEASE DO NOT PROCEED TO THE NEXT SECTION UNTIL YOU HAVE SEEN THE VIDEO

BELOW ARE A NUMBER OF WORDS WHICH MAY BE USED TO DESCRIBE THE PERSON YOU HAVE SEEN IN THE VIDEO. AFTER EACH SCENE PLEASE PUT A CROSS ON THE LINE TO DESCRIBE HOW YOU SEE THE PERSON IN QUESTION.

E.G. very: quite: a bit: in between: very:

angry

-------- X ---- --- --- --- --- --- calm

SCENE 2

Relaxed

Hostile

Intolerant

Easy going

Formal

Pleasant

THIS WAS BECAUSE OF: (please tick) What was said __ The person's posture or walk __ The facial expression __ Tone of voice __
Scene 2

List all the things you could reasonably do in this situation.

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

What do you think would be the best thing to do in this situation?

What would you hope to achieve by doing this?

What do you think you would actually do?

What would you expect to achieve by doing this?
You work in a supermarket and you and a friend have been pricing the goods in the store room. You've been having quite a chat but you have been working when the supervisor comes in and tells you off for talking and asks why the job isn't finished.

PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.

This situation should be fairly easy to deal with
The other person will probably misunderstand me
This is the kind of situation I usually try to avoid
The other person will probably think I'm alright
I might say the wrong thing
I'm not sure what to do or say
I'll probably cope alright
The other person will probably understand me
This will probably be difficult to deal with
This is the sort of situation I quite enjoy
The other person might think badly of me
I'm fairly sure how to handle this

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PLEASE DO NOT PROCEED TO THE NEXT SECTION UNTIL YOU HAVE SEEN THE VIDEO.

BELOW ARE A NUMBER OF WORDS WHICH MAY BE USED TO DESCRIBE THE PERSON YOU HAVE SEEN IN THE VIDEO. AFTER EACH SCENE PLEASE PUT A CROSS ON THE LINE TO DESCRIBE HOW YOU SEE THE PERSON IN QUESTION.

E.G. angry

angry

SCENE 3a

Calm
Hostile
Formal
Accepting
Intolerant
Tense

Angry
Friendly
Informal
Critical
Understanding
Relaxed

THIS WAS BECAUSE OF: (please tick) What was said __ The person's posture or walk __ The facial expression __ Tone of voice __
SCENE 3a

List all the things you could reasonably do in this situation.

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

What do you think would be the best thing to do in this situation?

What would you hope to achieve by doing this?

What do you think you would actually do?

What would you expect to achieve by doing this?
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<th>Relaxed</th>
<th>Calm</th>
<th>Friendly</th>
<th>Formal</th>
<th>Critical</th>
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<td>Understanding</td>
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<tr>
<td>Accepting</td>
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</table>

THIS WAS BECAUSE OF: (Please tick) What was said  The person's posture or walk  The facial expression  Tone of voice
List all the things you could reasonably do in this situation.

1.

2.

3.

4.

5.

6.

7.

8.

What do you think would be the best thing to do in this situation?

What would you hope to achieve by doing this?

What do you think you would actually do?

What would you expect to achieve by doing this?
SCENE 4

It's your first day in this particular workshop at work. The supervisor has told you how to do a particular job, but you're not quite sure if you've understood. Across the bench from you is another worker who you think is doing the same job.

PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.

This situation should be fairly easy to deal with
The other person will probably misunderstand me
This is the kind of situation I usually try to avoid
The other person will probably think I'm alright
I might say the wrong thing
I'm not sure what to do or say
I'll probably cope alright
The other person will probably understand me
This will probably be difficult to deal with
This is the sort of situation I quite enjoy
The other person might think badly of me
I'm fairly sure how to handle this

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PLEASE DO NOT PROCEED TO THE NEXT SECTION UNTIL YOU HAVE SEEN THE VIDEO

BELOW ARE A NUMBER OF WORDS WHICH MAY BE USED TO DESCRIBE THE PERSON YOU HAVE SEEN IN THE VIDEO. AFTER EACH SCENE PLEASE PUT A CROSS ON THE LINE TO DESCRIBE HOW YOU SEE THE PERSON IN QUESTION.

E.G.:

angry

very: quite: a bit: in: a bit: quite: very:

between:

very: quite: a bit: in: a bit: quite: very:

angry

very: quite: a bit: in: a bit: quite: very:

competent:

competent:

hostile:

hostile:

friendly:

friendly:

tense:

tense:

accepting:

accepting:

pleasant:

pleasant:

formal:

formal:

THIS WAS BECAUSE OF: (please tick) What was said The person's posture or walk The facial expression Tone of voice
List all the things you could reasonably do in this situation:

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

What do you think would be the best thing to do in this situation?

What would you hope to achieve by doing this?

What do you think you would actually do?

What would you expect to achieve by doing this?
SC/SP

SCENE 5

You work in a shop and there’s been a sale on. The supervisor comes over to you and another worker and, addressing the other worker, asks you both to sort out some of the left-over clothes. The other worker then turns to you and says 'where are we going to begin then?'

PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.

This situation should be fairly easy to deal with

The other person will probably misunderstand me

This is the kind of situation I usually try to avoid

The other person will probably think I'm alright

I might say the wrong thing

I'm not sure what to do or say

I'll probably cope alright

The other person will probably understand me

This will probably be difficult to deal with

This is the sort of situation I quite enjoy

The other person might think badly of me

I'm fairly sure how to handle this


PLEASE DO NOT PROCEED TO THE NEXT SECTION UNTIL YOU HAVE SEEN THE VIDEO

BELOW ARE A NUMBER OF WORDS WHICH MAY BE USED TO DESCRIBE THE PERSON YOU HAVE SEEN IN THE VIDEO. AFTER EACH SCENE PLEASE PUT A CROSS ON THE LINE TO DESCRIBE HOW YOU SEE THE PERSON IN QUESTION.

E.G. angry      calm

SCENE 5

Friendly
Co-operative
Bossy
Relaxed
Composed
Flexible

 Hostile
Difficult
Easy going
Tense
Impatient
Rigid

THIS WAS BECAUSE OF: (please tick) What was said The person’s posture or walk The facial expression Tone of voice
SCENE 5

List all the things you could reasonably do in this situation.

1. ____________________________________________________________

2. ____________________________________________________________

3. ____________________________________________________________

4. ____________________________________________________________

5. ____________________________________________________________

6. ____________________________________________________________

7. ____________________________________________________________

8. ____________________________________________________________

What do you think would be the best thing to do in this situation?

What would you hope to achieve by doing this?

What do you think you would actually do?

What would you expect to achieve by doing this?
SC/SP
SCENE 6

The lunch time rota for the workshop in which you work has been changed, but you've forgotten and gone to first lunch instead of second. This means that the person you work with can't go off until you get back. You only realise your mistake as you arrive back in the workshop.

PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.

This situation should be fairly easy to deal with
The other person will probably misunderstand me
This is the kind of situation I usually try to avoid
The other person will probably think I'm alright
I might say the wrong thing
I'm not sure what to do or say
I'll probably cope alright
The other person will probably understand me
This will probably be difficult to deal with
This is the sort of situation I quite enjoy
The other person might think badly of me
I'm fairly sure how to handle this

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PLEASE DO NOT PROCEED TO THE NEXT SECTION UNTIL YOU HAVE SEEN THE VIDEO

BELOW ARE A NUMBER OF WORDS WHICH MAY BE USED TO DESCRIBE THE PERSON YOU HAVE SEEN IN THE VIDEO. AFTER EACH SCENE PLEASE PUT A CROSS ON THE LINE TO DESCRIBE HOW YOU SEE THE PERSON IN QUESTION.

E.G. VERY: QUIET:A BIT: IN A BIT: QUIET: VERY:

angry

SCENE 6a
Formal
Relaxed
Angry
Critical
Friendly
Sullen

Tense
Calm
Accepting
Hostile
Hostile

THIS WAS BECAUSE OF: (please tick) What was said The person's posture or walk The facial expression Tone of voice
SCENE 6a

List all the things you could reasonably do in this situation.

1. .................................................................................................................................

2. .................................................................................................................................

3. .................................................................................................................................

4. .................................................................................................................................

5. .................................................................................................................................

6. .................................................................................................................................

7. .................................................................................................................................

8. .................................................................................................................................

What do you think would be the best thing to do in this situation?
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What would you hope to achieve by doing this?
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What do you think you would actually do?
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.................................................................................................................................
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What would you expect to achieve by doing this?
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**Scene 6b**

<table>
<thead>
<tr>
<th>VERY:QUITE:A BIT: IN A BIT:QUITE:VERY BETWEEN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tense</td>
</tr>
<tr>
<td>Angry</td>
</tr>
<tr>
<td>Jolly</td>
</tr>
<tr>
<td>Informal</td>
</tr>
<tr>
<td>Friendly</td>
</tr>
<tr>
<td>Critical</td>
</tr>
</tbody>
</table>

This was because of: (Please tick) What was said  The person posture or walk  The facial expression  Tone of voice
SC/SP

SCENE 7

You have just started work in a supermarket and a customer asks you where the icing sugar is. You think it is over the other side of the shop with the ordinary sugar, but you're not quite sure. The other assistants are all busy either at the till or pricing articles.

PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.

This situation should be fairly easy to deal with
The other person will probably misunderstand me
This is the kind of situation I usually try to avoid
The other person will probably think I'm alright
I might say the wrong thing
I'm not sure what to do or say
I'll probably cope alright
The other person will probably understand me
This will probably be difficult to deal with
This is the sort of situation I quite enjoy
The other person might think badly of me
I'm fairly sure how to handle this

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

PLEASE DO NOT PROCEED TO THE NEXT SECTION UNTIL YOU HAVE SEEN THE VIDEO

BELOW ARE A NUMBER OF WORDS WHICH MAY BE USED TO DESCRIBE THE PERSON YOU HAVE SEEN IN THE VIDEO. AFTER EACH SCENE PLEASE PUT A CROSS ON THE LINE TO DESCRIBE HOW YOU SEE THE PERSON IN QUESTION.

E.G.

angry

very: quite: a bit: in: a bit: quite: very:

between:

FE:

angry

friendly

impatient

formal

demanding

relaxed

obnoxious

hostile

composed

informal

obliging

tense

pleasant

THIS WAS BECAUSE OF: (please tick) What was said The person's posture or walk The facial expression Tone of voice
List all the things you could reasonably do in this situation.

1. ............................................................
2. ............................................................
3. ............................................................
4. ............................................................
5. ............................................................
6. ............................................................
7. ............................................................
8. ............................................................

What do you think would be the best thing to do in this situation?
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........................................................................

What would you hope to achieve by doing this?
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........................................................................
........................................................................

What do you think you would actually do?
........................................................................
........................................................................
........................................................................

What would you expect to achieve by doing this?
........................................................................
........................................................................
........................................................................
VERY: QUITE: A BIT: IN A BIT: QUITE: VERY
BETWEEN:

Informal
Impatient
Hostile
Pleasant
Tense
Obliging

Formal
Composed
Friendly
Obnoxious
Relaxed
Demanding

THIS WAS BECAUSE OF: (Please tick) What was said__ The person's posture or walk__ The facial expression__ Tone of voice__
List all the things you could reasonably do in this situation.

1. ..............................................................................................................
2. ..............................................................................................................
3. ..............................................................................................................
4. ..............................................................................................................
5. ..............................................................................................................
6. ..............................................................................................................
7. ..............................................................................................................
8. ..............................................................................................................

What do you think would be the best thing to do in this situation?

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What would you hope to achieve by doing this?

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What do you think you would actually do?

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What would you expect to achieve by doing this?

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SCENE 8

You work in a bookshop. A woman comes up to you and tells you that the book you recommended for her nephew when she was in a hurry the day before is unsuitable. It was, in fact, your day off that day and one of your colleagues must have served her. The manager, you know, doesn't like you giving cash refunds, but you know you can if necessary.

PLEASE TICK ANY OF THE FOLLOWING THOUGHTS WHICH YOU MIGHT HAVE IF YOU WERE IN THAT SITUATION, AND ADD ANY OTHERS YOU MIGHT HAVE.

This situation should be fairly easy to deal with __

The other person will probably misunderstand me __

This is the kind of situation I usually try to avoid __

The other person will probably think I'm alright __

I might say the wrong thing __

I'm not sure what to do or say __

I'll probably cope alright __

The other person will probably understand me __

This will probably be difficult to deal with __

This is the sort of situation I quite enjoy __

The other person might think badly of me __

I'm fairly sure how to handle this __

………………………………………………………………………………………………………

………………………………………………………………………………………………………

………………………………………………………………………………………………………

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E.G.

angry

VERYY: QUITE: A BIT: IN A BIT: QUITE: VERY: BETWEEN:

calm

SCENE 8a

Obnoxious

Calm

Critical

Friendly

Informal

Tense

Pleasant

Accepting

Hostile

Formal

Relaxed

THIS WAS BECAUSE OF: (please tick) What was said __

The person's posture or walk __

The facial expression __

Tone of voice __
SCENE 8a

List all the things you could reasonably do in this situation.

1. ..............................................................................................................
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2. ..............................................................................................................
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3. ..............................................................................................................
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4. ..............................................................................................................
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5. ..............................................................................................................
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6. ..............................................................................................................
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7. ..............................................................................................................
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8. ..............................................................................................................
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What do you think would be the best thing to do in this situation?
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What would you hope to achieve by doing this?
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What do you think you would actually do?
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What would you expect to achieve by doing this?
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..............................................................................................................
<table>
<thead>
<tr>
<th>Formal</th>
<th>Informal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tense</td>
<td>Relaxed</td>
</tr>
<tr>
<td>Pleasant</td>
<td>Obnoxious</td>
</tr>
<tr>
<td>Calm</td>
<td>Angry</td>
</tr>
<tr>
<td>Accepting</td>
<td>Critical</td>
</tr>
<tr>
<td>Hostile</td>
<td>Friendly</td>
</tr>
</tbody>
</table>

THIS WAS BECAUSE OF: (Please tick) What was said  The person's posture or walk  The facial expression  Tone of voice
List all the things you could reasonably do in this situation.

1. .......................................................................................................................................................... 
2. .......................................................................................................................................................... 
3. .......................................................................................................................................................... 
4. .......................................................................................................................................................... 
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7. .......................................................................................................................................................... 
8. .......................................................................................................................................................... 

What do you think would be the best thing to do in this situation?
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