CONCERN ABOUT EVALUATION BY OTHERS: MEASUREMENT AND LINKS WITH PSYCHOPATHOLOGY

Thesis submitted for Ph.D. degree at Leicester University.

1993

Martin D. Fitch, M.A., M.Sc. (Clin. Psychol.)
ACKNOWLEDGEMENTS

I am grateful to the many people who have helped and supported me during the time I have been conducting this research. Rev. Dr. Fraser Watts, as my main supervisor, has been an invaluable guide throughout, and has shown great skill in quickly assimilating my progress and pointing me in the right direction during my rather infrequent visits. I would also like to thank my supervisors at Leicester, initially Professor Martin Herbert, and latterly Professor Derek Jehu, for their support. I am also indebted to Peterborough District Health Authority, my employers at the beginning of the research, and to South East Staffordshire Health Authority and Premier Health, NHS Trust, S.E. Staffs, my current employers, for their support of my research activity.

While conducting this research I have been helped by a number of colleagues, namely Gill Hazelrigg, Clinical Psychologist in Peterborough, and Terry Walton, Clinical Psychologist in Lichfield, without whose help I would have been unable to collect sufficient data. I am also grateful to Keren Duckett and Lynne White for their willing secretarial assistance, and to Lyn Pitt, Librarian at St Matthews Hospital, Burntwood, for her rapid response to my frequent requests for literature.

One group that should not go unrecognised is my research subjects; colleagues, volunteers and patients, without whom there would be no research. I would particularly like to thank the M.R.C. Applied Psychology Unit, Chaucer Road, Cambridge for allowing me to use their subject panel.

Finally I must thank the person who has given me the most long term, consistent support; my wife. Part-time research means a considerable extra burden falls onto the family of the researcher, and Sue and my children, Simon, Thomas and Sarah (the latter two being born during this research) have patiently tolerated me during periods that this has been the case.
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Literature Review</td>
<td>5</td>
</tr>
<tr>
<td>Study 1</td>
<td>39</td>
</tr>
<tr>
<td>Study 2</td>
<td>47</td>
</tr>
<tr>
<td>Study 3</td>
<td>70</td>
</tr>
<tr>
<td>Single Case Studies</td>
<td>121</td>
</tr>
<tr>
<td>Final Summary and Discussion</td>
<td>156</td>
</tr>
<tr>
<td>Appendices</td>
<td>175</td>
</tr>
<tr>
<td>References</td>
<td>215</td>
</tr>
</tbody>
</table>
INTRODUCTION

Harre (1979, p.3) states that "the pursuit of reputation in the eyes of others is the overriding preoccupation of human life". Concern about evaluations by others has also been linked to psychopathology, for example Beck and Emery (1985, p.151) state that "the central fear in the so-called social anxieties is that of negative evaluation by another person". This tendency for people to show great concern for what other people think of them, to the extent that it has a major impact on their lives, forms the focus of this research thesis.

In the literature review Section A looks at the historical background of the concept that people are highly concerned about what others think of them, different explanatory approaches to the concept, and at the ways in which the concern can become pathological according to the different explanatory approaches.

Section B of the literature review looks at the development of the concern within an individual, at concepts related to the concern about others evaluations, and at methods of assessing the cognitions of interest.

Section C looks at clinical research into the relationship between anxiety problems and the concern with others' evaluations of oneself, and at evidence that therapy can change cognitions related to self-evaluation.

A questionnaire measure of the cognitions of interest was devised and refined through Studies 1 to 3, and the relationships between the successive versions of the questionnaire and related measures of cognitions and psychopathology were investigated.

Four single case studies were conducted to examine how the cognitions of interest changed during cognitive therapy targeted on these cognitions.

The final summary and discussion attempt to link the observed results with developmental models that might account for individual differences in the concern people have about how others evaluate them, and use cognitive models of memory and judgemental processes to account for observed relationships between the cognitions of interest in the present series of studies.

Finally, a number of suggestions are made about possible future studies.
The review of the literature is divided into:

A. 1. Historical References.
   2. Explanatory Approaches to the concern with others' evaluations of ourselves.
   3. Theoretical origins of pathological differences.
B. 1. Development of concern about evaluations by others.
   2. Concepts related to concern about evaluations by others.
   3. Assessment Methods.
C. 1. Clinical research related to concern about evaluations by others.
   2. Evidence of therapeutic change in self-evaluation cognitions.

A. 1. Historical References
An early reference to the desire to please others, and the harmful effects of this desire, can be found in the writings of Epictetus, the Stoic philosopher. He refers to the pursuit of 'reputation' and concern with the views of 'Externals' as harmful in that they make the person vulnerable to things outside of their own control. This can be seen in the following three quotations from his Manual (Carter on Epictetus, 1768: p. 261):

"Of things, some are in our Power, and others not. In our Power are Opinion, Pursuit, Desire, Aversion, and in one Word, whatever are our own Actions. Not in our Power, are Body, Property, Reputation, Command, and, in one Word, whatever are not our own Actions.

Now, The Things in our Power are, by Nature, free, unrestrained, unhindered: but those not in our Power, weak, slavish, restrained, belonging to others. Remember then, that, if you suppose Things by nature slavish, to be free; and what belongs to others, your own; you will be hindered; you will lament; you will be disturbed; you will find fault both with Gods and Men".

p.268 "If you would improve, be content to be thought foolish and stupid with regard to Externals. Do not wish to be thought to know anything; and though you should appear to be somebody to others, distrust yourself. For, be assured, it is not easy at once to preserve your Faculty of Choice in a State comfortable to Nature, and Externals: but while you are careful about the one, you must of necessity neglect the other."

p. 273: "If you every happen to turn your Attention to Externals so as to wish to please any one, be assured, that you have ruined your Scheme of Life. Be contented then, in every thing, with being a Philosopher: and, if you wish to be thought so likewise by any
one, appear so to yourself, and it will suffice you."

In Christian writings there are similar exhortations not to be concerned with the views of peers, but only with the views of a higher being, God. For example, Paul says (Galatians 1,10):

"Whose support do I want but Gods alone? Do you think I am currying favour with men? If I still sought mens favour, I should be no servant of Christ."

The philosopher John Locke also places importance on the desire to please others in his 'Essay concerning Human Understanding', which appeared in a number of editions between 1690 and 1706. When speaking of the way man evaluates his own behaviour, Locke states (Nidditch, 1975, p.351):

"Of these Moral Rules, or Laws, to which Men generally refer, and by which they judge of the Rectitude or Pravity of their Actions, there seem to me to be three sorts ... 1. The Divine Law 2. The Civil Law 3. The Law of Opinion or Reputation ... (whereby ... men judge whether their Actions are Virtues or Vices ... Thus the measure of what is everywhere called and esteemed Virtue and Vice is this approbation or dislike, praise or blame ... according to the Judgement, Maxims, or Fashions of that place."

and later (p.354)

"Men generally do judge of, and denominate their actions according to the esteem and fashion of the Place or Sect they are of."

Locke then goes on to stress the strength of this 'Moral Rule' (p.356):

"He who imagines commendation and disgrace not to be strong motives on men ... seem little skilled in the nature or history of mankind; the greatest part whereof he shall find to govern themselves chiefly, if not solely, by this law of fashion: and so they do that which keeps them in reputation with their company, little regard the laws of God or the magistrate."

"Solitude many men have sought and been reconciled to; but nobody that has the least thought or sense of a man about him can live in society under the constant dislike, and ill opinion of his familiars and those he converses with. This is a burden too heavy for human sufferance".

These early writings show that it has long been recognised that a frequent motivation for people's behaviour is the desire to please others, and also that this could be harmful, either pragmatically or spiritually. Some writers, notably the Stoic Philosophers and the Christian writers, recommend that less concern should be shown for the views of others, the former because it leads to a less troubled life, the latter because it brings man closer to God.
One of the first writers to explicitly examine the desire to please others was William James. His view are quoted at some length, as his analysis seems equally valid today, some 90 years after it was written.

James (1891) divides the Self (defined as 'the sum total of all that he can call his') into four constituents: the material self, the social self, the spiritual self and the pure ego. James further defines a persons social self as 'the recognition which he gets from his mates', and states that 'we have an innate propensity to get ourselves noticed, and noticed favourably, by our kind' (p.189). James emphasises at length the importance of this desire for approval from peers, he states that (p.190):

"A man’s fame, good or bad, and his honor or dishonor, are names for one of his social selves ... It is his image in the eyes of his own "set", which exalts or condemns him as he conforms or not to certain requirements that may not be made of one in another walk of life ... What may be called ‘club opinion’ is one of the very strongest forces in life.

James’ view, then, of the desire to please others, is that it is innate, all powerful, and is directed mainly to ones immediate social group. Further quotes from James make it clear that he sees the desire to please others as often irrationally excessive, which he takes as evidence that it is instinctive:

"Our social self-seeking, in turn, is carried on directly through our amativeness and friendliness, our desire to please and attract notice and admiration .... That the direct social self-seeking impulses are probably pure instincts is easily seen. The noteworthy thing about the desire to be ‘recognised’ by others is that its strength has so little to do with the worth of the recognition computed in sensational or rational terms ..... So it comes about that persons for whose OPINION we care nothing are nevertheless persons whose notice we woo; and that many a man truly great, many a woman truly fastidious in most respects, will take a deal of trouble to dazzle some insignificant cad whose personality they heartily despise”.

James later contradicts this notion of an instinctive, overwhelming desire to please others when he states that:

"Our self feeling in this world depends entirely on what we back ourselves to be and do .... thus,

\[
\text{Success} = \frac{\text{Self Esteem}}{\text{Pretensions}}
\]

...To give up pretensions is as blessed a relief as to get them gratified .... Once more, then, our self feeling is in our power.”
This clearly implies that a person could 'give up' the propensity to please others if they chose, and still maintain a high level of Self Esteem. James gives two examples of how this might come about, in two opposing ways. His first example, Stoics, give up all pretensions, all external needs and desires, which according to James is only possible to 'narrow and unsympathetic characters'. He contrasts this with his second example, Sympathetic people, whose magnanimity accommodates any unpleasant feedback. James characterises their thoughts as:

"Let them despise this little person of mine, and treat me like a dog, I shall not negate them so long as I have a soul in my body. They are realities as much as I am. What positive good is in them shall be mine too, etc., etc."

One way of reconciling the apparent contradiction between James claim that the desire to please others is overriding, and his observation that some people seem relatively unconcerned by what others think of them, is to use James concept of "the potential social self" (p.203). James states (p.203):

"When ....I brave the condemnation of my own family, club and 'set' ....I am always inwardly strengthened in my course and steeled against the loss of my actual social self by the thought of other and better possible social judges than those whose verdict goes against me now."

The person is said to be seeking recognition by "the highest possible judging companion", taken by James to be "God, the Absolute Mind, the 'Great Companion'". The person therefore still has an overriding desire to please 'others', but the 'others' in some cases are not the persons immediate peers, but a God figure, or possibly a group of real but distant people that the person is trying to emulate.

McDougall (1932) takes a similar view to James of the strength of the motivation to please others, although he is less explicit than James in recognising the social nature of judgments about someone's "personal distinction". Talking about the 'sentiment of self regard', (a sentiment being an acquired affective organisation), McDougall states (p.233) that:

"This sentiment is the main source of some of our most vivid emotional experiences of our most intense and sustained efforts and of our most acute satisfactions and sufferings .... How powerful, then, must be the motives that spring from this sentiment! ... What other pleasures can compare with those that come from the praise, the applause, the admiration of the great public? What pain so severe as the mortification of failure, of disgrace or of universal contempt?"

McDougall is unclear whether 'failure' is a personal judgement not involving others, or
whether it is dependent on the view of others. However, he clearly recognises the importance of others' views as in the following extract (p.235):

"A man's clothes, his house, his garden, his car, his dog, his horse, his books, his pictures, and more especially all his possessions which he has not only selected but in some manner or degree has created, all these are things in which he may 'take pride' in so far as other men admire them; or take shame, in so far as they are looked down upon or lightly esteemed by others."

In McDougall's psychology the source of the basic desire to please others seems to be instinctive, although it is shaped by experience to become part of the Sentiment of Self Regard. As each person's sentiments are unique, depending upon the experiences the person has had, people will differ in the degree to which they want to please others, although McDougall seems to believe that it always remains a very powerful sentiment. Maslow also seems to take the view that the desire to please others is innate. According to Maslow (1954) the Basic Needs are the physiological needs, the safety needs, the belongingness and love needs, and the esteem needs. The esteem needs are the desire for success and mastery, and for reputation and prestige. Maslow claims that the need for respect and prestige must be met if the person is to move on to satisfy the 'growth needs' of self-actualization. Maslow then theorizes that the person who has reached this state can think in a different way (Being-cognition) in which the person is aware of the essence, the uniqueness of objects, including himself. In Being-cognition the person is non-comparing, non-evaluating, non-judging. The person is then unconcerned by what others think, as they accept themselves for what they 'are'. Maslow (1968, p.114) likens this to "the Eastern goal of ego-transcendence and obliteration, of leaving behind self-consciousness and self-observation". It is not clear from Maslow whether self-actualised people think in such ways only during 'peak experiences', or whether it is present continuously.

A. 2. Explanatory approaches to the concern about evaluation by others.

There are a number of approaches that can be identified that attempt to explain why people are concerned with the views and evaluations that others have of them. These are:

a). Instinct explanations
b). Psychoanalytic explanations.
c). Behavioural approaches.
e). Symbolic Interactionist approaches.
a). Instinctive Drive Approaches

As described in the section on the historical antecedents of the concept, William James (1891), McDougall (1932) and Maslow (1954) assert that the desire to please others is instinctive. Maslow (1968) sees this desire as part of a person's "basic needs", which can be satisfied and so allow the person to move on to self-actualising, when the evaluation of the self by others ceases to matter. Murray (1938) produced a list of twenty "needs" (n) identified from intensive study of a small number of subjects, including "n Affiliation- ... To please and win affection of a cathexed object." and "n Infavoidance- To avoid humiliation. To quit embarrassing situations or to avoid conditions which may lead to belittlement....". Rather than use these two "needs", Atkinson et al (1954) subdivide the need for Affiliation, defined as the motivation to be accepted and liked by others, into two types, Hope for Affiliation (Approach) and Fear of Rejection (Avoidance).

Atkinson et al (1954) found that people high in n Affiliation tended to have lower popularity (tau= -0.27, p=0.05) and were described as approval seeking, self-assertive, confident and egotistical.

Byrne (1962) examined the relationship between n Affiliation, attitude similarity and attraction, and found that low and high n Affiliation groups showed similar levels of attraction to subjects who had high levels of attitude similarity. In conditions of low similarity, the low n Affiliation group showed lower levels of attraction than did the high n Affiliation group. It seems that those low in need for affiliation were more discriminating about who they liked.

Arkin (1981) in his discussion of self-presentational styles, states that individuals strive to convey the most positive presentation of the self that is possible, to maximise social approval. He sees the underlying determinant of this as Achievement Motivation, following Atkinson (1964). Arkin states that "organismic variables are the motive for success and the motive to avoid failure; the major property of the goal object is the experience of the affect that derives from success... and from failure..." (p.312). However, Arkin also implies that secondary reinforcement contributes to the desire to convey a favourable impression, by agreeing with the "common assumption that self-presentation often occurs in order to enhance undefined favored treatment in future unknown future circumstances " (p.313).

Arkin goes on to distinguish between acquisitive self-presentation and protective self-presentation. The former style enhances the opportunities for gathering social approval, whereas the latter minimises the likelihood of disapproval. Which style is dominant depends on the "others" involved, on the social context, and on the presenter.
In Arkin's earlier writings (1981) he concludes that the need for approval and the motive to avoid disapproval were quite separate processes. In his later work (1986) he suggests that at least among shy people, the two motives co-occur and are closely related. A rather different 'instinctive' model of the desire to please others comes from Kohlberg (1969), when discussing factors affecting moral development. He states that a child wants approval as a sign that it has performed a task competently, to meet the child's "instinctive desire for success", its "primary competence motivation" (p.439).

Another model which falls in the 'instinctive' category is the psychobiological theory of Trower and Gilbert (1989). Using an ethnological approach they focus on the importance of dominance hierarchies for mammalian social groups, these hierarchies giving structure and cohesion to the group. All individuals seek the dominant position in the group, and seek to avoid harm or rejection by more dominant members of the group. Submissive appeasement is the first strategy used to minimise harm, and then escape, fight, flight, faint, camouflage or avoidance. Social anxiety in humans occurs when appraising the situation for injury or put-down in an interaction with more dominant members of the group. Concern with the evaluations of others relates to this need to maintain and enhance one's position in the hierarchy. Theoretically therefore, only the evaluations of people higher up the hierarchy than oneself should matter, and evaluations of strangers shouldn't matter.

Trower and Gilbert also describe another mode of social interaction, the 'hedonic' mode. Here the dominant sends reassurance signals which increase approach behaviour, and de-activates the defence system described above. Individuals seek appreciation rather than submission, and a mutually positive reinforcement system develops. Individuals are still concerned with their evaluation by others, but are seeking approval rather than fearing rejection. Which system is operating depends on the dominant's choice for maximising its control of resources, and on the subordinates previous experience of the two systems which may produce the ability to trigger one system rather than the other.

b. Psychoanalytic Explanations.

Horney (1951) sees the desire for prestige (reputation, acclaim, popularity, admiration, special attention) as part of the "neurotic ambition" (p.25), the drive for external success. This drive is part of the need for perfection that arises from the "search for glory" (p.24). Horney coins the term "search for glory" to describe the drive to actualise an "idealised self". This results when the energies that drive toward self-realisation in a healthy person become shifted to the neurotic aim of actualising the idealised self. This shift occurs when a person becomes alienated from their real self as a result of "unfavourable conditions"
(p.18), "the people in the environment are too wrapped up in their own neuroses to be able to love the child, or even to conceive of him as the particular individual he is; their attitudes towards him are determined by their own neurotic needs and responses". Horney describes the neurotic ambition for self-idealisation as compulsive (it "must" be achieved), indiscriminate (applies to all situations), insatiable (the relentless chase for more prestige), and absolute (only perfection will do).

It appears that Horney sees the concern with others' evaluation of oneself as neurotic, and not a characteristic of someone moving healthily to self-realisation.

Fromm (1947) sees the concern with the opinions others have of oneself as part of the 'marketing orientation' of character that he claims has become common in the twentieth century. Modern humanity experiences itself as a commodity, and feels worthy only if 'successful'. Because success is uncertain, self-esteem is always vulnerable and in need of constant affirmation by others. Identity must be found "not in reference to himself and his powers but in the opinion of others about him...This situation makes him utterly dependent on the way others look at him and forces him to keep up the role in which he once had become successful." (p.80).

c). Behavioural Approaches.

Goffman (1959) describes the way in which people present themselves to others in order to convey certain impressions to the others, this being done for a variety of reasons including "He may wish them to think highly of him, or to think that he thinks highly of them, or to perceive how in fact he feels towards them, or to obtain no clear-cut impression; he may wish to ensure harmony so that the interaction can be sustained, or to defraud, get rid of, confuse, mislead, antagonise, or insult them." (p.3). Goffman is not specific about the underlying motivation for the impression management, but it seems to be to gain reinforcement as he says "it will be in his interests to control the conduct of the others, especially their responsive treatment of him. This control is achieved largely by influencing the definition of the situation which the others come to formulate, and he can influence this decision by expressing himself in such a way as to give them the kind of impression that will lead them to act voluntarily in accordance with his own plan...so that it will convey an impression to others which it is in his interests to convey." (p.3).

Leary (1983) follows Schlenker (1980) in asserting that people are motivated to control their self-presentations in order to maximise their social rewards while minimising their social costs. People are more likely to value the evaluative reactions of competent, powerful, high status others as such people mediate valuable rewards and punishments e.g. job enhancements. Leary notes that people often seem highly concerned with their
social images even when there is no possibility of receiving social rewards or punishments. He accounts for this by saying that people "imagine" the kinds of impressions others are forming, and these imagined evaluations have secondary reinforcing properties (Leary 1983, p.85). Leary also advances the symbolic interactionist view, described further below, whereby a person's self concept is affected by others' evaluations, people desire to maintain a high self esteem, and so seek perceived positive evaluations from others. Leary suggests that "imagined" evaluations only operate when the person is not directly affected by the others' evaluations, rather than such evaluations being an intrinsic part of all social interaction. The latter position seems more likely, as the other's reaction is monitored frequently during an interaction, and "imagined" evaluations must be produced, before the point in an interaction where a social reward or punishment is given. Such clear rewards/ penalties would also seem to be quite rare in normal social interaction.

Buss (1983) proposes a classification of social incentives in which social rewards are divided into Process and Content rewards. A number of these involve concern for the evaluations others have of us. In the Process Reward of "Attention from Others", Buss claims that moderate levels of social attention are rewarding, but high levels are not, as in the case of audience anxiety. Three of Buss's Content Rewards involve concern for others' evaluations, Deference (the acknowledgement of status is rewarding), Praise and Affection. Buss states that affection and praise make the recipient feel valued and worthwhile, and so are universal reinforcers.

Each of the Content Rewards is seen as a bipolar dimension, positive at one end (e.g. Praise) and aversive at the other (e.g. Criticism).

d. Sociological Approaches.

Riesman (1950) sees high levels of concern with the evaluations of others as a characteristic of a society in population decline, when "other-directed types" become dominant. He distinguishes this type from the "tradition-directed type" and the "inner-directed type".

The tradition-directed type is characteristic of a population with high growth potential, a high birth and death rate, where stability is maintained by traditional power groups, freedom is limited, and people accept their situation and make little attempt to change it. There is little individuation, everyone being fitted into an institutionalised role. Behavioural conformity is paramount.

The inner-directed type occurs in the stage of high population growth that occurs when the death rate drops, and their is still a high birth rate. There is increased personal mobility,
accumulation of capital, rapid expansion and greater choice. Social conformity and stability are maintained by an "inner" direction implanted early in life by "the elders", mainly towards personal advancement (p.15).

The third stage is that of incipient decline of population, when the "other-directed type" becomes dominant. A decline in birth rate follows the earlier drop in death rate due to children being less economically advantageous with the decline of child labour in agriculture and industry, higher survival rate of children, and perception of children as individuals with their own careers to make. Resources continue to expand and outstrip need, so the material environment becomes less of a problem, people mix more widely and become more sensitive to each other. The "other" becomes the source of direction, which is internalised early in life. Conformity is maintained by "an exceptional sensitivity to the actions and wishes of others" (p.22). Riesman goes on to state that this "...need for approval and direction from others...goes beyond the reasons that lead most people in any era to care very much what others think of them. While all people want and need to be liked by some of the people some of the time, it is only the modern other-directed types who make this their chief source of direction and chief area of sensitivity." (p.23).

Riesman sees the "others" as coming from a wide social environment, as the importance of family is diminished as it is not the close knit unit it was in earlier stages, and the border between familiar and strange has broken down.

Kassarjian (1962) conceived of inner-other-directedness as a continuum, and developed a questionnaire to measure it (the I-O Scale) based on the descriptions given by Riesman of the two types. The 36 item scale was tested on undergraduate students, and validity tested in two ways. Science students were compared to Humanities students, on the grounds that the former were likely to be more inner-directed, and the latter more other-directed. Kassarjian found the Humanities students scored significantly more other-directed on the I-O Scale. Validity was also tested by correlating I-O scores with ratings of the inner-other directedness of the hobbies and leisure interests of the students. An overall correlation of 0.69 was obtained, which was said to show satisfactory validity. A modified version of the questionnaire was also given to a general population sample, but the correlations between I-O and demographic data (e.g. of occupations) were often not significant.

Harre (1979) also links the condition of society with the concern people have for the views of others. He suggests that practical aspects of activity (gaining food and shelter) and the expressive aspects (presentation of self) jointly explain social behaviour. In Western society relatively little time is required for the practical aspects, and the expressive aspects dominate. Harre states that "the pursuit of reputation in the eyes of
others is the overriding preoccupation of human life* (p.3). Social activity is said to be mainly rituals for respect and contempt marking, to the extent that rituals of respect dominate over personal feelings, and over practical advantage. Harre sees the seeking of respect as "The deepest human motive" (p.2), suggests it is grounded in the 'organic conditions of life', and that skilled impression management is a reproductive advantage which would have allowed its neurological basis to evolve (p.31).


Cooley (1902) suggests that the social self is formed from the persons perceptions of the appraisals of others:

"In a very large and interesting class of cases the social reference takes the form of a somewhat definite imagination of how one's self- that is any idea he appropriates- appears in a particular mind, and the kind of self-feeling one has is determined by the attitude toward this attributed to that other mind. A social self of this sort might be called the reflected or looking-glass self:

'Each to each a looking glass
Reflects the other that doth pass.'

As we see our face, figure, and dress in the glass, and are interested in them because they are ours, and pleased or otherwise with them according as they do or do not answer to what we should like them to be; so in imagination we perceive in another's mind some thought of our appearance, manners, aims, deeds, character, friends, and so on, and are variously affected by it." (p.183-184)

In this "looking-glass" model of the self, one's self-evaluation is influenced by one's perception of the others evaluation of oneself: "We always imagine, and in imagining share, the judgments of the other mind." (p.185). How much importance is given to the others evaluation depends partly on one's evaluation of the other: "...the character and weight of that other, in whose mind we see ourselves, makes all the difference with our feeling. We are ashamed to seem evasive in the presence of a straightforward man, cowardly in the presence of a brave one, gross in the eyes of a refined one, and so on." (p.184-185).

Symbolic Interactionist approaches suggest that people are concerned with the evaluations others have of them because this affects their self image and their attempts to maintain a high self-esteem. The question then becomes what motivates them to enhance their self-esteem? There are similar explanations for this as are described here for the concern for evaluation by others: i.e. secondary reinforcer (Gergen, 1971; Kaplan, 1975), and innate (James, 1891; McDougall, 1932).
Mead (1934) describes his approach as social behaviourist, and this is seen in his use of the term "conversation of gestures" to describe communication between two people. However, he mainly uses cognitive and interactionist approaches to describe the formation of 'self'. He states that "He becomes a self in so far as he can take the attitude of another and act toward himself as others act... It is the social process of influencing others in a social act and then taking the attitude of the others aroused by the stimulus, and then reacting in turn to this response, which constitutes a self." (p.171). Self-consciousness is an intrinsic part of this process, and is described as the taking of the attitude of the other toward yourself, to become an object to yourself through social interaction.

Mead attempts to distinguish his approach from that of Cooley by saying that Cooley attributes the formation of the self to 'reflexive affective experiences', because of Cooley's use of the term "self-feeling". He contrasts this with his own "cognitive" approach, that the self "lies in the internalised conversation of gestures which constitutes thinking" (p.173). This distinction seems unconvincing, as Cooley seems to include the cognitive as well as the affective elements. The latter are particularly important in self-evaluation, an aspect Mead does not directly address other than to say "The individual need not take the attitude of others towards himself,... since these experiences (reflexive affective experiences) merely in themselves do not necessitate his doing so" (p.173).

Mead seems to see the person's self-evaluation coming from the person's perception of their superiority or inferiority compared to others, and from whether they achieve the values of the group ("One does keep his word, meet his obligations; and that provides a basis for self-respect." p.204; "genuine superiority...rests on the performance of definite functions. One is a good surgeon, a good lawyer, and he can pride himself on his superiority..." p.208). The sense of superiority is said to be sought as "a means for the preservation of the self. We have to distinguish ourselves from other people..." (p.208).

Webster and Sobieszek (1974) conducted a series of experiments on problem-solving groups to examine the conditions in which a group-members self-evaluation was influenced by the perceived evaluations of others. They found that evaluators had more impact on a group members' self-evaluation of their own task ability if the evaluator had:

a). High perceived task ability
b). High perceived status
c). Access to objective standards

They also add two other factors affecting the importance of "others" views, based on their review of the literature.

d). A high frequency of interaction with the "other"
e). A low number of "others" interacted with.

Latane (1981) suggests that the strength of the social impact of a group of 'others' on an individual is a multiplicative function of the 'others' status, immediacy and number. Evidence supporting this comes from Latane and Harkins (1976) who measured anticipated performance anxiety for different types of audience. They found anticipated anxiety higher for larger, higher status audiences.

Rosenberg (1979) also considers which 'others' have the greatest influence on self-evaluation. He analysed interviews with 1917 schoolchildren in Baltimore of all ages, and found:

i). Not all others are equally significant. 84% cared "very much" what their mothers think of them, whereas only 34% assigned equal importance to "kids in your class".

ii). The link between the child's view of what their parents thought of them, and the child's self-esteem, was mediated by how much the child cares what their mother thought of them. If the child cared a lot about what their mother thought of them then self esteem was positively correlated with their perception of their mothers views of them, but these latter variables were not correlated if the child was not concerned about their mothers views. This pattern was found for six of the seven 'others' used in the study (mother, father, classmates, boys, girls, siblings), but no for 'teacher', where the perceived self and self-esteem were correlated even when the child said they did not care what the teacher thought of them. The distinction made between the content of the others evaluation, and the importance attached to the evaluation, is an important one and is central to the research described later in this thesis.

iii). Self-esteem enhancement seems to occur. More importance was given to the views of others that tended to think highly of the child, and less concern was shown for the views of those thinking poorly of them. These correlations do not of course show the direction of causality.

iv). The higher the credibility of the 'other' as a judge, the greater the correlation between perceived self and self-esteem.

Rosenberg argues that the 'significant others' whose views of us influence our self esteem are unconsciously selected to protect self-esteem and maintain a stable self-concept. This was supported by his finding that children were more likely to say the 'others' views of them were accurate if these views were positive.

f). Mixed Models

The Self-Presentation approaches of Carver (1979), Arkin (1981) and Schlenker & Leary (1982), use both behavioural and interactionist explanations of the concern for evaluation
by others.

Arkin (1986), when discussing why social disapproval is such a compelling experience that some people will go to such extremes to avoid it, states that disapproval confirms self-doubts and damages self-esteem. This would diminish the person's sense of efficacy (Bandura, 1977), which would diminish the person's initiation of rewarding actions. A low rate of response-contingent positive reinforcement would be expected to lead to depression (Lewinsohn, 1974).

Crowne and Marlowe (1964) see the need to win approval and affection from others as a major determinant of behaviour, and that its influence on behaviour is mediated by expectancies of outcome and by situational determinants, as described in Social Learning Theory (Rotter, 1954). They suggest that the desire for approval may serve the more fundamental task of maintaining and enhancing self-esteem, and in particular, to maintain and defend an idealised self-concept, following Horney (1950).

They devised the Marlowe-Crowne Social Desirability Scale as a measure of the approval motive, and they relate individual differences in this motive with other personality-related concepts. They summarise people who score highly on their scale as more conforming, cautious, persuadable, and their behaviour is more normatively anchored. Despite seeking approval they tend to be disliked.

Schlenker and Leary (1982) and Leary (1983) describe a 'self-presentational' model of social anxiety. Self-presentation is the attempt to control images of self before a real or imagined audience, in order to generate particular images of the self and so influence how audiences perceive and treat the person. Social anxiety occurs when a person is motivated to make a particular impression on others but doubt that they will do so. Motivation to create a desired impression is claimed to be higher when:

1. The situation has evaluative overtones, whether implicit or explicit.
2. The self-constructs salient in a situation are central to the person's self-concept.
3. The number of others present increases.
4. The others are of high power and status.
5. The person focuses attention on the public aspects of the self, as described by Fenigstein (1979). When people are 'publicly self-conscious' they are said to be aware of themselves as a social object, and to show increased responsiveness to negative interpersonal evaluations. This public self-consciousness can be situationally induced or a trait. People high in the trait tend to score highly on many measures of social anxiety (Schlenker & Leary, 1982).
6. The person has a high need for social approval. This need is described as a
combination of dispositional and situational factors. People high in need for approval are described as lacking confidence, assertiveness and social skills, being defensive, and not regarded as friendly by others.

It is not clear whether Leary regards the dispositional factors as the effect of a person's reinforcement history, as an effect of their early parenting experiences along psychoanalytic lines, or as instinctive.

Leary claims to follow Crowne and Marlowe (1964), who analyze the "Approval Motive" using Social Learning Theory, which sees behavior as a function of needs, expectancies, and the situation. Crowne and Marlowe use a psychoanalytic explanation of need for approval, as "a set of self-reflexive attitudes- a self-conception- in which an idealised version of the self is maintained and defended." (Crowne and Marlowe, 1964, p.196). Approval is sought to defend this idealised self-conception. This approach was described in section b above.

Leary describes the main situational factor affecting a person's desire for approval as the experience of recent failure. Schneider (1969) showed that after apparent failure on a social sensitivity task subjects gave more positive self-descriptions. Leary claims that the motivation to impress others is increased after failure in order to forestall negative social repercussions, and to raise self-esteem which depends on others evaluations.

A.3. Theoretical origins of pathological differences.

Previous sections have looked at the concern with the evaluations of others' and its relationship with normal human functioning. Some of the explanatory approaches also describe how this concern relates to pathological functioning. These will be discussed within the same groupings as those used to classify the explanatory approaches.

a). Instinctive concern for evaluation by others.

These approaches tend to pay little attention to individual differences and links with psychopathology. Need for Affiliation is said to vary between people (Murray, 1938), implying that some people will have particularly high levels innately, making these people vulnerable to psychopathology when these high levels cannot be satisfied.

b). Psychoanalytic Explanations.

Horney (1950), as described above, sees the concern with the evaluations of others as part of the 'neurotic ambition', and says it does not occur in people moving healthily to self-realisation. Horney claims that lack of love and respect for the person as an individual in childhood results in self-idealising, striving for perfection and acceptance, and over appeasing. This approach suggests that many members of society will not be concerned with the views others have of them, and that those that are can learn to lose this concern.
with the aid of therapy.

c). Secondary Reinforcer.

Buss (1980) proposed that public self-awareness (awareness of own appearance and behaviour induced by presence of others) is both a state and a trait. People high in this trait are typically more aware of their social images and more likely to experience social anxiety.

Buss (1983) relates some pathological conditions to individual differences in personality traits, which make particular rewards more powerful than others. In Shyness, Attention from others becomes aversive very easily, whereas in those low in Self-Esteem, special value is placed on praise and affection.

Arkin (1981) suggests that an individual might develop a protective self-presentation (which he associates with shyness) when early family relationships are characterised by frequent punishment linked to high parental standards, lack of reward for achieving standards, rejection, and reinforcement of dependency. Alternatively, there could be a lack of contingency in the child’s reinforcement history, making success unpredictable and uninformative regarding one’s competence, lowering the child’s sense of self-worth and increasing the risks of social interaction.

Individuals exposed to such environments tend to have low self-esteem, and their self-protective strategy perpetuates and accentuates this by inhibiting the development of social competencies and minimising the social rewards they receive. Arkin, Lake & Baumgardner (1986) suggest that this vicious circle is completed by the fact that lowered self-esteem raises more doubts about social competence, increases concern with disapproval, and so strengthens protective self-presentation.

d). Sociological Theories.

Riesman (1950) describe the "other-directed type" (see above) as having an insatiable need for approval, and sensitivity to a wide social environment. Because the other-directed person receives social signals from far and near, from many sources, subject to rapid change, the person experiences a diffuse anxiety (p.26). He sees this over-concern with the evaluations of others as a symptom of a certain stage of social evolution, characteristic of modern American society. He recognises individual differences in this type, due to different intensities of socialisation experience, so presumably those most influenced are going to most prone to the anxiety reaching pathological levels.

e). Symbolic Interactionist Approaches.

Generally these have little to say about pathological conditions, as they are based in the social psychology tradition of explaining normal functioning.
Buss (1986), in his theory of self-conscious shyness, suggests that excessive socialisation training in the importance of the social self may make the child develop a strong negative sense of self as a social object, and be self-consciously shy. Buss does not see this type of shyness as social anxiety, but it does seem to overlap with his description of fearful shyness in social situations, which he says is a form of social anxiety, and occurs in contexts where "one's self or person is being evaluated" (p.40).

f). Mixed Models

Crowne and Marlowe (1964) suggest that high need-for-approval individuals attempt to validate their self-worth and defend against anticipated failures. They assume such individuals will show low levels of independence, low assertiveness, lack emotional honesty, and to have difficulty recognising and dealing with hostility. If the person also believes their ability to achieve goals is low then maladjustment is likely. These maladjusted individuals avoid potential failure situations, which makes the resolution of conflict unlikely and perpetuates it.

As psychotherapy is a potential failure situation, Strickland and Crowne (1963) hypothesised that psychotherapy patients with a high need for approval would be more likely to terminate psychotherapy early. They found strong support for this in their analysis of link between length of therapy and high versus low need for approval, as measured by the Marlowe-Crowne scale. Patients high in need for approval were much more likely to terminate therapy, 44% stopped after less than 21 sessions, compared to 21% for those low in need for approval. Those high in need for approval also tended to be rated by the therapist as more defensive or disorganised.

Leary (1983) states that social anxiety arises when people desire to make a good impression on others, but doubt their ability to do so. Everyone experiences social anxiety to a degree as social interaction is a constant process of impression management. The importance of the concern with others' evaluations is supported by studies linking the Fear of Negative Evaluation (measured by the FNE, Watson and Friend, 1969) with social anxiety (e.g. Goldfried and Sobocinski, 1975).

B. 1. Development of Concern about Evaluations by Others.

Allaman, Joyce and Crandall (1972) looked at the development of social desirability response tendencies using subjects from a longitudinal study where parental behaviours were rated in the home twice a year. Social desirability responding was measured by the Children's Social Desirability Scale (Crandall, Crandall & Katkovsky, 1965) and by the Marlowe-Crowne adult scale (Crowne & Marlowe, 1960). High social desirability
responding was linked with lack of affection, hostility and criticism, particularly during infancy, and restrictiveness, punitiveness and coerciveness during pre-school years. For young adults, the relationship with the same-sex parent had the largest effect. Allaman et al suggest that the parental rejection and criticism of the child produce a generalised concern with others' evaluations of them, and a high expectation of disapproval. This results in low self-esteem and anxiety in evaluative situations.

Buss (1983) seems to see the development of his 'Social Rewards' as innate, and peaking at different stages of development. Attention, particularly by the Mother, is greatly important in the first year of life. Praise becomes important as language develops, whereas Deference does not come into play until school age, and it is not till adolescence that children can take roles earning them respect.

Affection undergoes a number of developmental shifts, peaking in infancy and later in adolescent romantic attachments. During these periods the affection is said to be unconditional, which boosts self-esteem, while during the middle period of childhood it tends to be more conditional on acceptable behaviour.

Buss (1986) in his analysis of Shyness, distinguishes between "fearful shyness" and "self-conscious shyness". Fearful shyness can be caused by social novelty, as in stranger anxiety in the infant; by intrusiveness, as when someone feels their personal space is invaded; and by social evaluation. This latter cause is construed as a social anxiety, and is said to occur in adults and children "who have been socialised sufficiently to be aware of the appropriate standards and the negative consequences of failing a social evaluation." (p.40). Buss distinguishes these forms of fearful shyness from self-conscious shyness, which occurs when people are aware of themselves as a social object in situations involving conspicuousness, criticism or social rule breaking. This form of shyness is said to start in around the fourth and fifth year of life when the child develops the cognitive capacity to see itself as a social object from another persons perspective.

Buss's distinction between fearful shyness occurring in self-evaluative situations, and self-conscious shyness occurring in conspicuous situations, seems unconvincing. The real difference between these forms of shyness may be that fearful shyness highlights the affective component of shyness, and self-conscious shyness the cognitive component.

Buss, Iscoe and Buss (1979) investigated the development of a social self by asking parents if their children had displayed embarrassment in the last six months. They reasoned that embarrassment could only occur if their was a sense of oneself as a social object. They found only a small percentage of three year olds showed signs of embarrassment, quite a few four year olds did, and the peak was for five year olds,
thereafter remaining a steady majority.

Buss (1986) argues that self-conscious shyness develops during childhood as parents reinforce the importance of the social self, through emphasis on appearance and manners. Leary (1985) suggests that concern for how one's self will be judged by others develops in later childhood (around 8 years) when the child has developed more advanced role-taking skills due to cognitive maturation, and because a high premium is often placed on social competence. Elkind and Bowen (1979) developed a questionnaire measure of anxiety and avoidance in social-evaluative situations for 9 to 17 year olds (called the Imaginary Audience Scale). They found that anxiety and avoidance peaked at age 13-14. Arkin (1981) suggests that people develop an acquisitive or a protective self-presentational style depending on reinforcement history during childhood. The acquisitive style is seen as the normal state of development whereby the child tries to maximise rewards, but that this can be abandoned as a result of certain socialisation experiences, and becomes replaced by the risk-avoiding strategy of protective self-presentation. Conditions in which this might occur were discussed above under Theoretical origins of pathological differences.

Arkin, Lake & Baumgardner (1986) develop this approach further by suggesting that acquisitive and protective self-presentation are not separate processes, but can co-occur. Shy people often show both a need for self-enhancement and fear of disapproval.

The effect of environment on the development of the desire to please others is shown in a study by Deci, Nezlek and Sheinman (1981), who looked teachers' methods of motivating students and the students orientation to learning. They found that teachers of 9 to 11 year olds who controlled their children through extrinsically motivating strategies (e.g. threat of punishment, surveillance, tangible reinforcers) had students who were less intrinsically motivated to learn (i.e. lacked interest in schoolwork, preferred easy to challenging tasks, worked to please the teacher). Teachers who encouraged autonomy and were less controlling promoted an intrinsic orientation in students, who showed strong curiosity, accepted a challenge, attempted independent mastery, and reported low dependence on teacher approval. These effects were shown after only 6 weeks of exposure to the different styles. This study suggests that concern with the views of others is changeable by environmental contingencies.

Bruch (1989) assessed familial and developmental antecedents of social-evaluative concerns through a questionnaire study of 21 social phobics and 22 agoraphobics. Compared to agoraphobics, social phobics (characterised by high social-evaluative fears) were more likely to perceive their parents as overemphasising the opinions of others, and
seeking to isolate them from social experiences. Parker (1979) compared social phobics, agoraphobics and controls on the Parental Bonding Instrument, a questionnaire measuring perceived care and overprotection. He found social phobics scored both parents as less caring and more overprotective than controls, this overprotectiveness being typified by infantilisation (e.g. 'Did not want me to grow up'; 'Tended to baby me'). These findings seem consistent with the view that parents of social phobics overemphasise the views of others, as an overprotective parent presumably emphasises sources of danger and threat, and this would include social-evaluative threat.

Fromm (1947) sees the concern with others evaluations as an aspect of character that has become widespread in capitalist societies emphasising the market as the fundamental determinant of value, even of the self. Fromm does not explain why some people are stronger in the 'marketing orientation' than others, but he sees it developing from the cultural attitudes prevailing in capitalist societies, particularly in the urban middle class. As Fromm sees character as the result of 'canalisation of psychic energy' in the process of assimilation and socialisation, he presumably sees the marketing orientation arising during childhood and early adulthood as a result of familial and social influences.

B. 2. Concepts related to the desire to please others

a). Ingratiation

Jones (1964) defines ingratiation as "a class of strategic behaviours illicitly designed to influence a particular other person concerning the attractiveness of one's personal qualities." (p.11). He states that people desire to be judged favourably, though for differing reasons. It may be to increase interpersonal power so the person can acquire reinforcers, to protect a socially anxious person from possible attack, or to boost self-esteem by 'signifying' the worth of the person. He characterises these three groups as "acquisitive manipulators, fearful social isolates, and self-validation seekers." (p.48). As well as dispositional factors, the importance of social approval is influenced by situational factors such as recent experiences of success or failure, social deprivation, and the power of the other to dispense reinforcers (both concrete and signification). The motive may be to avoid a potential aversive outcome (e.g. being criticised) rather than achieve a positive one.

Most Ingratiation research studies one class of behaviours ('illicit' attempts to gain a positive response) that are the product of the concern with the views others' have of us, and uses secondary reinforcer and self-esteem maintenance explanations.

b). Type A behaviour pattern.

24
Price (1982) discusses the behaviour pattern, called Type A, which has been linked to increased risk of cardiovascular disease (Friedman and Rosenman, 1959). She claims that the essential cognitive substrate of Type A behaviour is the belief that one has to constantly prove oneself by achieving, and so earn the esteem and approval of others. The fear of insufficient worth continually drives the efforts to achieve more and so win more approval, and avoid disapproval. Price considers that Type A’s sense of self worth is determined by what others think of them (she does not see this as true for everyone, as the symbolic interactionists do), and that they are concerned about evaluations by virtually everyone (“That you cannot please all the people all the time appears to be an axiom unknown to most Type As.” p.174).

Watkins, Ward and Southard (1987) attempted to assess the validity of Price’s Type A belief system. They devised the Type A Cognitions Questionnaire (TACQ) to measure the need to constantly prove oneself through achievements and two other beliefs claimed to be typical of type A’s by Price; that no universal moral principle exists, and all resources are scarce. Watkins et al showed that the TACQ significantly correlated with two questionnaire measures of Type A behaviour (.31 with the Jenkins Activity Schedule; Jenkins, Rosenman & Friedman, 1967, and .36 with the Framingham Type A Scale; Haynes et al, 1978). It also correlated .46 with the Social Anxiety and Distress scale (SAD, Watson and Friend, 1969) and .49 with the Fear of Negative Evaluation scale (FNE, Watson and Friend, 1969). Unfortunately Watkins et al do not report separate results for the three beliefs the TACQ was designed to measure, which would have shown if the belief about having to prove oneself had a greater correlation with FNE than the other two beliefs, as would be expected. Factor analysis would also have been useful in determining the construct validity of the three beliefs being assessed.

The central belief of Type As postulated by Price, that one has to constantly prove oneself by achieving, incorporates the high level of concern about evaluations by others, which is the focus of the present research, together with the belief that others are most impressed by achievements.

c. Social Comparison Processes

Festinger (1954) developed a theory of social comparison processes to explain the link between self-evaluation and group membership. His emphasis was not on global self-evaluation (self-worth) but on specific areas of self-evaluation, and hypothesised that individuals have a drive to evaluate their opinions and abilities. If no objective criteria exist with which to compare oneself, then the comparison is made with the opinions and abilities of others. The ‘others’ used for this comparison will tend to be people close to
one's own ability or opinion, and members of social groups that the person finds attractive. When there is a discrepancy between one's own ability or opinion and that of the group then the person may choose new comparators, change one's own opinion or try and change the groups opinion, or try and change the groups composition, all with the aim of reducing the discrepancy. This aim is due to 'the pressure towards group uniformity'.

The social comparison approach discusses the formation of self-evaluations by comparing oneself with others, rather than self-evaluations being based on what others think of oneself, hence it is not directly relevant to the area of interest in the present research. However, social comparison processes may be better understood by taking account of the concern about evaluations by others, as this could explain the 'pressure towards uniformity': by being similar to one's peers one is more likely to be positively evaluated by them, which in turn raises feelings of self-worth and self esteem according to the symbolic interactionist approach.

B. 3. Assessment of concern about evaluations by others.


a. Protocol analysis

The subject produces a verbal or written report of cognitions. This is unitised into single thoughts, which are then scored by content or valence. Thought Listing is the most frequently used form, subjects are asked to recall thoughts that occurred in a particular time period e.g. before, during and after a social interaction. Arnottof and Glass claim that these methods tend to produce a rich source of data, they are adaptable to different areas of interest, but validity studies produce mixed results. For example, Glass and Furlong (1990) compared thought listing before a social interaction with questionnaire measures done before (SAD, FNE, Irrational Beliefs Test; Jones, 1968) and after (Social Interaction Self-Statement Test, SISST; Glass et al, 1982). They found that the questionnaire measures were intercorrelated, showing that demand for approval, high self-expectations and worry were related to social anxiety, but that the thought listing measure showed few significant correlations. The authors concluded that protocol methods have limited sensitivity and utility, and are time-consuming to use.

Davison, Feldman and Osborne (1984) used a technique called "articulated thoughts during simulated situations", whereby subjects (students) were asked to imagine themselves as one of the participants in a taped conversation in which a person was being
evaluated. Subjects had to report their thoughts when the tape was stopped after segments of the conversation, and these thoughts were coded for irrationality (in RET terms). The subjects also completed the IBT and FNE scales. The articulated thought measure of irrationality failed to correlate with the IBT or FNE. High IBT/High FNE subjects reported greater anxiety after the evaluative situations than Low IBT/Low FNE subjects, but the articulated thought measure of irrationality did not correlate significantly with reported anxiety. However, for the High IBT/High FNE subjects in a situation of social evaluation, the articulated thought measure of irrationality did correlate with reported anxiety ($r=0.49$).

Last, Barlow and O'Brien (1984b) used in-vivo tape recordings of thoughts and post-session thought listing to assess cognitive change during exposure treatment for agoraphobia. They found the measures were very unstable, fluctuating greatly within and between sessions, and were not highly related to each other.

Davison et al explain the poor correlation between the two types of measure (thought listing and questionnaire) by the thought listing being situation-specific, and the questionnaires representing generalised views about a variety of situations. However, in a footnote the authors state that similar studies using clinical subjects, who articulated more irrational thoughts overall, did show a significant link between the measures.

b. Structured Self-Statement Measures.

Subjects are asked whether certain thoughts occurred in a given situation, the thoughts or 'self-statements' often coming from a previous thought listing analysis. A well known measure in this category is the Social Interaction Self-Statement Test of Glass et al (1982). The scale of 30 items was derived from a thought listing exercise, 15 being negative self-statements, 15 positive. Factor analysis revealed four factors, Self-Depreciation (60.9% variance), Positive Anticipation (15.0%), Fear of Negative Evaluation (9.7%), and Coping (5.9%). The negative self-statements correlated significantly with self and observer ratings of social skill and anxiety. In their review Arnlcoff and Glass conclude that the SISST has adequate reliability, discriminant validity and concurrent validity. There are many other scales that were designed to measure social anxiety using self-statement check-lists: Social Anxiety and Distress (SAD, Watson and Friend, 1969), Social Reaction Inventory (Richardson and Tasto, 1976), Interaction Anxiousness Scale (Leary, 1983), Audience Anxiousness Scale (Leary, 1983b), Social Anxiety Thoughts Questionnaire (Hartman, 1984), Liebowitz Social Phobia Scale (Liebowitz, 1987), and the Social Interaction Anxiety Scale and Social Phobia Scale (Mattick and Clarke, 1989, unpublished manuscript referred to in Heimberg et al, 1992). The SAD was used in the
present research as a measure of social anxiety as it has been widely used for many years, and doesn’t contain any items directly concerning cognitions about evaluation by others, reducing contamination with measures that directly assess these cognitions. The Social Phobia Scale would have been used in the present research if it had been published earlier, as it assess anxiety in situations of public scrutiny, which is particularly relevant to the present research.

c). Theory-Based and Concept-Based Measures.
i. Rational-Emotive Therapy.

Jones (1968) developed the Irrational Beliefs Test (IBT) to measure the 10 irrational beliefs described by Ellis (1962). Factor analysis produced the 10 predicted scales, the largest factor being ‘Demand for Approval’. This factor structure was replicated in a second sample, and the scale was claimed to have adequate reliability, construct validity and convergent validity. However, it has been criticised as not having discriminant validity, as it correlates equally highly with general measures of anxiety and depression as with other measures of irrational beliefs (Smith & Allred, 1986). Smith and Allred suggest that the IBT is contaminated by reference to affect (mainly anxiety and worry) in item wordings. They also suggest that specific measures of situationally relevant irrational beliefs have greater predictive power than general measures of irrationality.

Lohr and Bonge (1982) investigated the factorial validity of the IBT using principal components analysis of 897 questionnaires completed by students. They replicated Jones’ factors apart from one scale, ‘frustration reactivity’. They recommended that some items be dropped and some be re-allocated to other scales, although this was not necessary for the Demand for Approval scale. They also recommend the development of "situation-specific measures of irrational beliefs by sampling problematic social situations and subsequent reasoning processes." (p.229).

Haaga and Davison (1989) suggest that the IBT and similar measures of irrational beliefs tend to underestimate change on re-testing, for example after therapy, because of ‘response-shift bias’ (Howard, 1982), whereby treatment makes a subject more aware of irrational beliefs which tends to inflate the ‘after’ measure.

Malouff and Schutte (1986) developed a measure of irrational beliefs intended to avoid the IBT’s weakness of being contaminated by references to anxiety. Their scale has 2 belief items for each of Ellis’s 10 irrational beliefs, and they claim adequate internal reliability (Cronbach’s Alpha = .80) and Test-Retest reliability (r = .89). Their scale correlated significantly with the IBT (r = .55, p < .001). However, no separate data is given for the individual subscales, and with only 2 items each this scale is clearly designed as an overall
measure of irrational beliefs rather than to measure specific factors.

ii. Self-Focused Attention.
Fenigstein, Scheier and Buss (1975) developed the Self Consciousness Scale (SCS) to measure Public and Private Self-Consciousness. Hope and Heimberg (1988) found that the Public SCS was positively correlated with other measures of social anxiety, including the SISST. It correlated particularly highly with the FNE (r=.71), suggesting a strong link between awareness of oneself as a social object and fear of negative evaluation. Ingram (1990) found that high Private Self-consciousness was characteristic of both high anxiety and high depression subjects (based on a student sample), but high Public self-consciousness was only found in the high anxiety group, the depressed group having intermediate levels.

iii. Social Desirability.
Crowne and Marlowe (1960) devised the Marlowe-Crowne Social Desirability Scale to measure social desirability responding, so that the effects of this response distortion on personality tests could be studied. They defined social desirability as the need to obtain approval by responding in a culturally appropriate and acceptable manner. The items used in the questionnaire consisted of descriptions of culturally accepted and approved behaviours that are relatively unlikely to occur (e.g. "I have never deliberately said something that hurt someone’s feelings"). The scale had a test-retest correlation of 0.89, and an internal consistency of 0.88 (Kuder-Richardson). Although the concept of social desirability is close to that of concern about evaluations by others, the Marlowe-Crowne scale is not used in the present research as it is really a measure of response bias in completing questionnaires rather than of a personality trait. A similar problem lies with Edwards Social Desirability Scale (1957).

iv. Fear of Negative Evaluation.
Watson and Friend (1969) devised the Fear of Negative Evaluation Scale (FNE) and the Social Avoidance and Distress Scale (SAD) as two measures of social-evaluative anxiety. Fear of negative evaluation was defined as apprehension about others’ evaluations, distress over their negative evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively. The test-retest reliability of the scale, with a 1 month gap, was 0.78. Watson and Friend report a correlation of -0.25 (N=205, p<0.01) with Crowne and Marlowe’s scale, which suggests that the need for approval, and the fear of disapproval, are not positively related. This is a rather surprising finding, given the closeness of the two concepts, and raises doubts as to whether the Marlowe Crowne scale really measures the need for approval, as the actual items endorsed imply an
unrealistically high self-opinion, which may reflect other personality traits than desire to be approved.

This seems to be Watson and Friend’s interpretation, they see the Marlowe-Crowne scale as only measuring a response style, and in fact found some evidence that high fear of disapproval was linked with desire for approval.

As the FNE is a widely used scale, and seems to be accepted as the best measure of fear of negative evaluation, it was used throughout the present study to test criterion validity.

v. Need for Affiliation.

Shipley and Veroff (1952) used a derivative of the Thematic Apperception Test (TAT) devised Murray (1938) to measure Need for Affiliation. They asked subjects (University students) to produce written stories to five pictures designed to elicit the need for Affiliation. A detailed scoring system analysed the stories for evidence of nAffiliation in imagery, need statements, instrumental activity, goal anticipation, obstacles, affective goal state, and thema. They found that experimental manipulation to increase nAffiliation produced the predicted increase on the measure, and that a group expected to be higher on nAffiliation, those rejected by fraternities, scored much higher on the measure than those accepted by fraternities. Despite its apparent validity, this test’s usefulness is limited by its time-consuming interpretation, and the need to train scorers.

In their review of cognitive assessment Arnkoff and Glass conclude that researchers should develop measures with greater specificity, both in terms of the cognitions measured and the situations they occur in, and the measures should have utility for clinical assessment of the socially anxious and phobic. The measures devised as part of the studies reported in the present research comply with these recommendations.

C. 1. Clinical research into the nature of anxiety problems and concern about evaluations by others.

The literature on the nature of anxiety is very large, and no attempt is made here to review all the references to concern about evaluations by others. Most such references are based on clinical impressions rather than empirical studies, and it is the empirical studies that are reviewed here.

Nichols (1974) reported an observational study of 35 clinical subjects troubled by social anxiety. He described twelve features that were present in at least half the cases, and three of these are closely related to the fear of negative evaluation. These three features were:

1. "A sensitivity to and fearfulness of disapproval and criticism", 

2. The perception of critical appraisal from others which in reality was often non-existent (which Nichols describes as a "strong tendency to project disapproval and criticism").
3. "A fear of being seen to be ill or losing control".

Nichols comments that: "In commonsense terms it is difficult to deny that loss of regard by others is normally a disturbing event to experience. But the extent to which it produces anxiety and tension will vary from person to person. What seems to emerge here, however, is that those with social anxieties are distinctive in their raised sensitivity to and fear of loss of regard by others".

Factor analytic studies of anxiety and fear questionnaires given to a clinical sample have produced factors related to fear of loss of approval. Dixon, DeMonchaux and Sandler (1957) factor analysed the Tavistock Self-Assessment Inventory which measures social anxiety, after it had been given to 250 Tavistock patients. They described a general factor of social anxiety, and four specific factors. The smallest of these, which accounted for 2.2% of the variance, was called "Fear of revealing inferiority", and contained four items relating to the fear of being judged critically by others. Lawlis (1971) factor analysed the responses of 185 patients of psychologists and psychiatrists on the Fear Survey Schedule, and found three main factors. The first of these, which accounted for 87% of the variance, was called 'fear of losing status or adequacy socially'. Of the twenty items with loadings greater than 0.34 on this factor, six refer directly to fear of negative evaluation by others.

The factors concerned with fear of negative evaluation in the two studies show a great difference in size (2.2% of the variance in the Dixon et al study, 87% in the Lawlis study). This is probably due to the different factoring methods used. Dixon et al used a modified Thurstone centroid method, whereas Lawlis used a principal components analysis with rotation to oblique simple structure. The Thurstone method gave a large general factor, the two highest loading items on this factor were 'I am frequently afraid I may look ridiculous or make a fool of myself', and 'I am sometimes afraid of expressing myself in case I make a foolish mistake'. These and other items loading highly on the general factor suggest that the importance of 'fear of negative evaluation' is underestimated by the size of the 'fear of revealing inferiority' factor, as fear of negative evaluation seems to be the major contributor to the general factor.

Factor-analytic studies of social anxiety questionnaires also produce variable findings as to the importance of the fear of negative evaluation factor. Richardson and Tasto (1976) devised the Social Reaction Inventory to assess social anxiety, and gave the 166 item questionnaire to 395 undergraduates. Factor analysis (Principal axes, varimax rotation)
produced seven clear factors, accounting for 43% of the variance. The first factor, which was by far the largest accounting for 28% of the total variance, was identified as ‘fear of criticism or disapproval from others’.

A different picture was obtained by Hartman (1984), who devised the Social-Anxiety Thoughts Questionnaire and gave it to 102 undergraduates. Principal components analysis with varimax rotation gave four factors. The first, accounting for 52.2% of the variance, reflected general psychological discomfort and social inadequacy, the second factor, accounting for 7.6% of the variance, reflected "concern with others' awareness of distress" (p.138), the third factor was labelled fear of negative evaluation, accounting for 4.9% of the variance. The distinction between the second and third factors is not very clear, as both seem to do with concern about evaluations by others.

These factor analytic studies of fear and anxiety questionnaires cannot be directly compared due to them using different items, subjects or factoring methods, but they do suggest that the concern with negative evaluation is a significant, and probably major, component in fear and anxiety.

Ellis (1962), in his "Rational Emotive Therapy" claims that emotions such as anxiety and depression are caused by faulty belief systems, and lists the most common ‘irrational’ beliefs. One of the most important of these is the demand for approval- the belief that it is a necessity to be loved and approved by virtually every other person. This is said to be a perfectionistic, unobtainable goal, and the constant effort to achieve it requires giving up one’s own needs and preferences. Because it is impossible to please everyone the person is inevitably anxious when they fail to match their belief. Goldfried and Sobocinski (1975) supported the importance of the demand for approval in producing anxiety in an experiment using high and low need-for-approval subjects, based on scores on the Demand for Approval scale of the Irrational Beliefs Test (Jones, 1968). The subjects were asked to imagine an interpersonal event in which there was a possibility of social disapproval, as well as two neutral events. They found that high need-for-approval subjects gave greater ratings of anxiety and hostility in the disapproval condition.

Gormally, Sipps, Raphael, Edwin and Varvil-Weld (1981) looked at ‘irrational’ (in RET terms) beliefs and estimates of risk in a clinical sample of students receiving treatment for dating anxiety. Irrational beliefs were measured by the IBT, and a scale was constructed (SEI- Situational Expectancies Inventory) to measure estimates of risk. The SEI consisted of four dating social situations, and subjects had to say how they would feel after two outcomes, acceptance or rejection. The subject also rated the probability of rejection. Subjective risk was defined as the product of affective value of rejection and its
probability. The subjects also completed the Survey of Heterosexual Interactions (SFI, Twentyman and McFall, 1975). The clinical sample (N=46) was compared to a group of confident daters on the above measures. Analysis of variance showed that Need for Approval produced the largest effect (F=8.03), followed by SEI risk score (F=7.84).

The best predictor (from regression analysis) of the SFI was SEI risk (r=-.51), followed by the IBT Worry scale (r=-.40). The Need for Approval scale may have failed to contribute to the regression because of shared variance with the SEI risk scale, as the latter is a compound of concern with rejection and probability of it, the former being conceptually linked to need for approval. This study is particularly interesting in that as well as showing the link between maladaptive cognitions and one type of social anxiety, it also makes a distinction between the probability of a negative evaluation of the subject and the aversiveness of such an evaluation. This is a distinction used within the present research.

Carr (1974) was one of the first to apply this distinction between probability and value in the clinical field, although it had been used in the area of decision theory, where Mausner and Platt (1971) had used the product of the probability of various outcomes (of smoking) and the value attached to these possible outcomes as a measure of the 'subjective expected utility' of smoking behaviour.

Carr was concerned with the perception of threat in obsessional disorders. He differentiated between the psychological cost and the probability of an event, and said that threat was the product of the two. Butler and Mathews (1983) tested this model using a questionnaire consisting of ten ambiguous scenarios, and asking subjects to rate the likelihood of various outcomes, one of which was negative, and 'how bad' (subjective cost) would the various outcomes be if they did happen. Subjects also rated the subjective probability of 36 positive and negative events, some of which referred to the self, some to another person. They found that patients diagnosed as having Generalised Anxiety Disorder were more likely to give negative interpretations of ambiguous events, and higher cost estimates, and also gave higher likelihood of negative events happening to themselves, but not others, compared to Controls. Those with Major Depressive Disorder gave an equally high frequency of negative interpretations to GAD subjects, an even higher estimate of cost, and gave high estimates of the likelihood of negative events for both self and others. For positive events the clinical groups were not different to controls. The only differences between the anxious and depressed groups was the depressed group gave higher likelihood ratings for negative outcomes for themselves and for others, whereas the anxious group rated a negative event as more likely to happen to them than to
someone else. However comparison of the two groups was made difficult by the high anxiety scores (on the Leeds Scale, Snaith et al 1976) of the Depression group, where they scored at the same level as the GAD group.

It is clear from the above studies that Concern about being negatively evaluated by Others is central to social anxiety, and this is seen in the DSM-III-R (1987) definition of social phobia, which is defined as "fear of... situations in which the individual may be exposed to scrutiny by others...(or) may behave in a manner that will be embarrassing or humiliating". Similarly, Beck and Emery (1985) state that the social phobic is hypersensitive to signals from other people regarding their acceptability, and Butler (1989) states that "the main cognitive component in social phobia (is) the fear of being negatively evaluated, criticised or rejected" (p.103).

A heightened concern about being evaluated by others occurs in other psychopathological conditions than social anxiety/social phobia.

The panic attacks that occur in agoraphobia tend to occur in public places, so there is a clear social element to the disorder. However, Beck and Emery (1985) state that the agoraphobic is hypersensitive to internal cues suggestive of impending mental or physical collapse, rather than to social evaluation. Clinical observation by the present Author suggests that the agoraphobic often fears physical collapse because of the effect it would have on social evaluation, so although the social evaluation element is less than in social phobia, it is often present to a degree. This can be seen in the Agoraphobic Cognitions Questionnaire (Chambless, Caputo, Bright & Gallagher, 1984), a 14 item scale comprising thoughts about the negative consequences of experiencing anxiety, derived from clinical interviews of agoraphobics. Six of the items are clearly related to fear of impending physical or mental collapse (e.g. 'I will have a heart attack', 'I am going to go crazy'), and six items are related to behaving in a physically uncomfortable and socially inappropriate way (e.g. 'I am going to pass out', 'I am going to scream', 'I will not be able to control myself'). One item is difficult to classify ('I will hurt someone'), and one item directly refers to social evaluation ('I am going to act foolish'). The items on which the agoraphobic sample scored most highly were 'I will not be able to control myself' and 'I am going to act foolish'. Factor analysis of the scale produced two factors, the first loading the loss of control items, the second loading the physical consequence items. The reason why a loss of control is aversive is not examined by Chambless et al, but it seems likely that it is because of the social evaluative consequences that would follow such an action. It seems then, that agoraphobia is also closely linked to a heightened concern about evaluations by others.
In Panic Disorder (DSM-III-R) panic attacks occur in various situations, and are said to be associated with 'apprehensive expectation'. Argyle (1988) examined the common cognitions involved in panic attacks and described them as concerning immediate mental or physical catastrophe, with fear of dying being the most common cognition. The social evaluative element seems much less in this disorder.

Depression is not usually linked with heightened social-evaluative concerns, the main focus of research has been on negative cognitions concerning the self, the world and the future, and the cognitive distortions that maintain the negative mental set (e.g. Beck, 1967).

A factor analytic study of women who had recovered from depression, and controls (Altman and Wittenborn, 1980), based on questionnaire items that differentiated the past-depressed and control subjects, produced five factors: Low self esteem, Preoccupation with failure, Unhappy pessimistic outlook, Narcissistic Vulnerability and Confidence/General sense of competence. The fourth factor, narcissistic vulnerability, consisted of items about being easily hurt, sensitive to criticism and worried about what others think of me. In a second, replicative study (Cofer and Wittenborn, 1980) using slightly different items with similar groups of subjects, Narcissistic Vulnerability was the second factor identified, again loading items about being easily hurt and concerned about what others think of me. These studies show that concern about evaluations by others, while not being central in depression, are nevertheless implicated to a degree. This is not surprising given the above discussion of the link between self-esteem and what others think of us, in which seem to be closely related, so the low self-esteem typical of depression would be expected to be associated with raised concern about evaluations by others.

There is also evidence that depression is linked to a heightened expectation that others will negatively evaluate the subject. Gotlib (1983) had depressed patients take part in a social interaction that was ostensibly evaluated by an observer (in fact a standard 'evaluation' was given to all patients). Depressed patients recalled the evaluation afterwards as more negative than it actually was, compared to non-depressed psychiatric patients. Loewenstein and Hokanson (1986) examined the reactions of dysphoric subjects to a brief standardised social interaction, and found that moderately dysphoric subjects displayed more negative appraisals of how they thought they were evaluated by the other person.

Blatt (1974) proposed the distinction between two dimensions of depression: a) anaclitic depression, characterised by feelings of helplessness, fears of abandonment and desire to be loved and cared for, and b) introjective depression, with intense feelings of guilt, inferiority and worthlessness. Blatt, D'Afflitti and Quinlan (1976) developed the
Depressive Experiences Questionnaire from items designed to assess the phenomenology of depression. Factor analysis of student subjects produced three factors: Dependency, Self-Criticism and Efficacy. The Dependency factor loaded items concerning feeling abandoned, being dependent on others, fearing rejection, and fearing offending others. This factor seems to involve a heightened concern about evaluations by others. The second factor, Self-criticism, loaded items concerning feeling guilty, hopeless, failing to meet standards and self-critical. This factor seems to involve a heightened expectation of failure. Franche and Dobson (1992) validated the Dependency and Self-Criticism dimensions on a study of clinically depressed patients. They found that both currently and past depressed subjects had raised levels of Dependency and Self-Criticism, but not Efficacy. They also reported a very high correlation of .81 between Dependency and Self-Criticism, which led them to doubt whether they were separate dimensions.

The literature reviewed here on the relationship between different forms of psychopathology and concern about evaluations by others therefore suggests that such concerns are central in social phobia, very important in agoraphobia, and of little importance in panic disorder. The concern about negative evaluation, and expectation of being negatively evaluated, are also implicated in depression.

C. 2. Changing the concern with others' evaluations

Rosenberg (1979), discussed the ease with which self-concepts may be changed. He noted that some experimental psychologists and sociologists seem to have little difficulty in changing the self-concept (e.g. Videbeck, 1960) whereas psychotherapists usually describe great difficulty producing meaningful change. Rosenberg states that the difference is related to the centrality of the concepts being changed to the persons self-image. Videbeck used false positive or false negative feedback to influence subjects perceptions of themselves as poetry readers, and demonstrated predictable changes in self-perception of skill in poetry reading. Rosenberg states that such changes are possible because the attributes involved are peripheral to the persons self-concept, whereas change in more central aspects of the self-concept is difficult because the persons self-worth becomes threatened, as this is linked to the core elements of the self-concept.

Strickland and Crowne (1963) claim that the approval motive is very resistant to change, based on their finding that the test-retest correlation of the Marlowe-Crowne Social Desirability Scale, given with a 5 to 6 month interval during which the patients were receiving psychotherapy, was 0.68. The mean scores did not significantly change over this period. It could equally be argued that the change was considerable, as the first scores
predicted only 46% of the variance in the second scores.
Clinical studies of cognitive change during therapy show change in cognitions is possible, and that this is accompanied by therapeutic gains. For example, Kanter and Goldfried (1979) treated people with social anxiety problems with systematic rational restructuring, self-control desensitisation, or a combination of these two, as well as having a waiting list control. They found that all three treatments reduced anxiety levels. Rational restructuring produced more gains on subjective reports of anxiety, and irrational beliefs (measured by the IBT) than desensitisation, and a greater reduction in Fear of Negative Evaluation. However, observation measures from a social interaction test and pulse rate measures showed no differences between conditions, suggesting the improvements in reported anxiety were not matched by behavioural improvements.

Summary
1). Although it is often stated (e.g. Nichols 1974) that anxious people are over-sensitive to the views of others, it is not clear whether they are supposed to have an excessive desire not to be criticised, or an excessive desire for approval, or both. It is also possible that this varies with different forms of psychopathology. Depressed people seem to be dependent on others, and expect others to be critical, but it is not clear whether depressed people have important differences to anxious people in the exact nature of their concern with what other people think of them.
2). Little distinction is made between the perception of criticism/approval from others, and the emotional significance of this to the person. For example, a person may perceive others as being highly critical of them, but could be unconcerned about this. Alternatively, a person could perceive others as being approving, but be very concerned that this could change to criticism.
3). Few theories look at the precise nature of the 'significant others', apart from saying that they tend to have high status. Only RET Approaches discuss the 'width' of the significant others; how this can vary from just a few people to virtually everyone. It is not clear whether the concern for the evaluations that 'everyone' have of them is only found in people with an anxiety problem.
4). It is not clear if it is possible to change specific cognitions, and if it is, does this have predictable effects on symptomatology.
Areas for investigation

1. Is it possible to measure the concern about the evaluations that others' have of oneself in a reliable and valid way?

2. Can the perception of the others' evaluation of oneself be separated from the emotional significance of the evaluation, and do these two factors show differential relationships with anxiety?

3. Are there predictable differences in the 'width' of significant others: People who are anxious may be concerned with what everyone thinks of them, whereas those not prone to anxiety may only be concerned with the views of people they are close to?

In order to investigate these issues a number of research studies have been conducted.

These are:

1. The devising of a questionnaire to measure the concept in question.
2. Revision of the questionnaire, focusing on areas of particular interest.
3. Final version of the questionnaire constructed, and subjected to reliability and validity checks.
4. Single case studies, using the questionnaire, to look at change over time in cognitions during cognitive therapy.
STUDY 1

The main purpose of Study 1 was the construction of a questionnaire to measure concern for the evaluations that others' have of oneself, and to explore links between the measures produced and anxiety.

Hypotheses

The following hypotheses came from clinical observations, the review of the literature, and an informal pilot study in which a number of individuals were interviewed to explore their concern about how 'others' evaluated them.

1. Importance of a particular evaluation from 'others' and perceived likelihood of that evaluation, are separate variables.
2. These two variables will show different relationships with anxiety and other measures of psychopathology.
3. High social anxiety will be linked to high desire for approval and a high aversiveness for disapproval.
4. Greater importance will be attached to the evaluations others have of the subject when the 'other' is someone close to the subject. The greater the social distance between the subject and 'other', the less the other's views will matter to the subject.

Questionnaire Construction

The Personal Reactions Questionnaire-1 (Appendix 1) was devised. The format used was a description of a social situation, in which the respondent had to imagine themselves as the subject, and then answer a number of questions on how they would think and feel in that situation.

Eight social situations were used, in four the respondent imagined themselves succeeding in front of others, and in four situations failing. Four social groups of 'others' were used which were intended to give a gradient of social distance; home, friends, colleagues, and strangers.

The questions that followed each vignette were designed to measure the respondents' perception of the likelihood of certain evaluations by 'others' (Questions 1 and 2), and the aversiveness or desirability of these evaluations (Questions 3 to 7). For each situation there was a 'general' question (Question 1) asking directly whether the others would be likely to think positively (for the success situations) or negatively (in the failure situations) about the subject, and a 'specific' question (Question 2) where the respondent checked four possible cognitions the 'other' might have about the subject.

Question 3 asked how concerned in general the subject was about the opinions of the 'others', and Questions 4 to 7 asked how the subject would react if the 'others' had each
of the thoughts mentioned in Question 2.

The two types of question (general and specific) were used as an internal validity check.

Scoring Procedure.

The general question about perceived likelihood of an evaluation (Question 1) was scored on a 1 to 4 scale, 1 corresponding to the 'not likely to think' option, and 4 to the 'certainly think' option. These were averaged across the four success and four failure situations, to give the General Measure of Likelihood of Positive Evaluation and the General Measure of Likelihood of Negative Evaluation respectively, both with ranges of 1 to 4. The general measure of concern about the opinions of others were scored similarly on 1 to 4 scales, 1 corresponding to 'Not matter at all' and 4 to 'Matter a lot'. These were averaged across the four success situations to give the General Measure of Importance of Others Views in Success Situations and across the four failure situations to give the General Measure of Importance of Others Views in Failure Situations, both with ranges of 1 to 4.

For the specific question about the likelihood of certain 'thoughts' others might have (Question 2), each 'yes' answer scored 1, and these were summed for the four 'thoughts' to give a range of 0 to 4. These were averaged across the four success and the four failure situations to give the Specific Measure of Likelihood of Positive Evaluation and the Specific Measure of Likelihood of Negative Evaluation respectively (both with ranges of 0 to 4).

For the specific questions about importance attached to the four 'thoughts' (Questions 4 to 7), each question was scored 1 to 4, 4 corresponding to 'be very important/ be awful' and 1 to 'not matter at all'. Questions 4 to 7 were then summed to give a 0 to 16 score. These were averaged across the four success situations to give the Specific Measure of Importance of Others Views in Success Situations, and across the four failure situations to give the Specific Measure of Importance of Others Views in Failure Situations (both with ranges of 0 to 16). The computation of the measures from the raw scores was done using the data manipulation facilities of SPSS-X (SPSS Inc., 1975).

Procedure

New referrals, made by GPs to a Clinical Psychology service for treatment of a variety of anxiety, minor depression and relationship problems, were given a battery of questionnaires at the end of the first interview if they were agreeable after the purpose was explained. The referral problem was categorised according to a list of common referral problems that was in general use in the Psychology Department at that time (see
Appendix 2), which had been devised by members of the Department for statistical purposes. The categorisation was based solely on the information given in the referral letter from the GP (i.e. the case was categorised before the patient was seen).

The battery of questionnaires was:
1. Personal Reactions Questionnaire-1 (as above)
2. Social Anxiety and Distress (SAD) (Watson & Friend, 1969)
4. General Health Questionnaire (GHQ) (Goldberg, 1978)

The demographic data collected was Age, Sex, and Referral Problem. The referral problems were classified using a list of the common reasons for referral to the Psychology Department. The data was analysed using SPSS-X.

Results
42 questionnaires were returned, 24 male, 18 female. The age range was from 21 to 59 (Mean=37.5, SD=9.5). The main types of referral problem were:
- Non-specific anxiety without panic attacks 16
- Non-specific anxiety with panic attacks 7
- Agoraphobia 7
- Other 12

The 'other' category included obsessional disorders (2), reactive depression (3), specific phobias (2), psychosomatic disorders (1), relationship problems (2), and personality assessment (2).

The main findings were:
1. The general and specific measures in each situation were reasonably correlated, which gives some support to the validity of the constructs being measured. The correlations (Spearman's rho was used as distribution of scores often deviated from normal and relatively small N of 42) between general and specific measures were:
   - Likelihood of negative evaluation in negative situation: 
     \( \rho = 0.73 \quad t = 6.74 \quad p < 0.01 \)
   - Likelihood of positive evaluation in positive situation: 
     \( \rho = 0.55 \quad t = 4.16 \quad p < 0.01 \)
   - Concern about possible negative evaluation in negative situations: 
     \( \rho = 0.64 \quad t = 5.27 \quad p < 0.01 \)
   - Importance of possible positive evaluation in positive situations: 
     \( \rho = 0.60 \quad t = 4.70 \quad p < 0.01 \)
2. Perceived concern about others' negative reactions and perceived likelihood of a negative reaction were not significantly correlated (Spearmans Rho=0.22, t=1.41, NS, for the general measure; Rho=0.10, t=0.68, NS, for the specific measure), but perceived importance of others' positive reactions and likelihood of a positive reaction were correlated (Spearmans Rho=0.60, t=4.66, p< .01, one-tailed for the general measure, Rho=0.38, t=2.56, p< .01 for the specific measure). It seems that people who expected others to respond positively in a success situation also tended to attach more importance to others views. This pattern was not found for failure situations.

3. FNE correlate mainly with the Importance measures, in both positive and negative situations (see Table 1.2).

4. SAD correlate with both Importance and Likelihood measures, but only in negative situations (see Table 1.2), i.e. the perceived views of others in positive situations were not related to social anxiety, only others' views in negative situations seemed to matter.

5. For the four groups of 'others' in the questionnaire, the subjects rated the importance of 'others' views of the subject as shown in Table 1.1.

Table 1.1 Importance attached to views of four types of 'other'.

<table>
<thead>
<tr>
<th></th>
<th>Negative Situations</th>
<th></th>
<th>Positive Situations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General measure-</td>
<td>Specific measure-</td>
<td>General measure-</td>
<td>Specific measure-</td>
</tr>
<tr>
<td></td>
<td>mean (SD)</td>
<td>mean (SD)</td>
<td>mean (SD)</td>
<td>mean (SD)</td>
</tr>
<tr>
<td>Family</td>
<td>3.57 (.70)</td>
<td>13.3 (2.7)</td>
<td>3.67 (.65)</td>
<td>12.8 (2.4)</td>
</tr>
<tr>
<td>Friends</td>
<td>2.79 (1.02)</td>
<td>11.6 (2.9)</td>
<td>3.04 (.99)</td>
<td>11.7 (2.3)</td>
</tr>
<tr>
<td>Colleagues</td>
<td>2.88 (1.05)</td>
<td>11.8 (2.6)</td>
<td>2.78 (1.04)</td>
<td>11.4 (2.6)</td>
</tr>
<tr>
<td>Strangers</td>
<td>1.83 (.96)</td>
<td>9.0 (3.5)</td>
<td>3.17 (.74)</td>
<td>12.6 (2.2)</td>
</tr>
</tbody>
</table>

N.B. Within columns, means sharing same subscript do not differ significantly (paired t-test, p=.01, two tailed).
Table 1.2 Correlations of PRO-1 with SAD and FNE

<table>
<thead>
<tr>
<th>Success situation</th>
<th>Failure situation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Likelihood of</strong></td>
<td><strong>Importance of</strong></td>
</tr>
<tr>
<td>Positive Eval</td>
<td>Others Views</td>
</tr>
<tr>
<td>Gen</td>
<td>Sp</td>
</tr>
<tr>
<td>.30</td>
<td>.01</td>
</tr>
<tr>
<td>.18</td>
<td>-.05</td>
</tr>
<tr>
<td>.30</td>
<td>.06</td>
</tr>
<tr>
<td>.36&quot;</td>
<td>.01</td>
</tr>
<tr>
<td>.13</td>
<td>-.16</td>
</tr>
</tbody>
</table>

| **FNE** || All Others combined || Others=Family || Others=Friends || Others=Colleagues || Others=Strangers |
|---------|---------------------|-----------------|-----------------|-----------------|-------------------|-----------------|
|        |                     | .08             | .05             | .21             | .09               | .50"             | .45"             | .42"             | .34"             |
|        |                     | -.25            | -.16            | -.01            | -.09              | .33"             | .40"             | .03              | -.23            |
|        |                     | .12             | .11             | .24             | .07               | .33"             | .37"             | .36"             | .38"             |
|        |                     | .27             | .12             | .22             | .19               | .42"             | .38"             | .31"             | .23              |
|        |                     | .15             | -.08            | .01             | .01               | .39"             | .26              | .41"             | .49"             |

| **SAD** || All Others combined || Others=Family || Others=Friends || Others=Colleagues || Others=Strangers |
|---------|---------------------|-----------------|-----------------|-----------------|-------------------|-----------------|
|        |                     | -.25            | -.16            | -.01            | -.09              | .33"             | .40"             | .03              | -.23            |
|        |                     | .12             | .11             | .24             | .07               | .33"             | .37"             | .36"             | .38"             |
|        |                     | .27             | .12             | .22             | .19               | .42"             | .38"             | .31"             | .23              |
|        |                     | .15             | -.08            | .01             | .01               | .39"             | .26              | .41"             | .49"             |

N.B. Correlations are Spearman Rank Order Correlations:
* p<.05, 2-tailed
** p<.01, 2-tailed

43
The order of importance in the negative situations was:
(N.B. > denotes a paired t-test significant difference, p < .01, df=41, two-tailed)
- General measure: Family > Friends/Colleagues > Strangers
- Specific measure: Family > Friends/Colleagues/Strangers

The order of importance for the positive situations was:
- General measure: Family > Strangers(Audience)/Friends/Colleagues
- Specific measure: no significant differences.

The greatest importance was always given to the views of Family, in both negative and positive situations, although Family was not significantly higher in the specific measure in the positive situation. The relative importance of Strangers varied with the situation used, having considerable importance in a success situation, but little in a failure situation.

6. The GHQ correlated with nothing apart from the subscales correlating highly with each other (between .40 and .73).

7. Multiple Regression analysis was used to predict SAD, as SAD was the main measure available of social anxiety. The independent variables were the general measures of Likelihood of Negative Evaluation and Importance of Others' Views in the four failure situations, as it was only in the failure situations that the PRQ-1 measures significantly correlated with SAD (see Table 1.2). Two variables, Likelihood of negative evaluation by strangers (Beta=0.38), and Likelihood of negative evaluation by colleagues (Beta=0.31), predicted 30% of the variance in SAD.

Discussion
Hypothesis 1, that perceived likelihood of an evaluation, and the importance of that evaluation, are separate variables, was supported. Both concepts showed reasonable construct validity as the general and specific measures of them correlated quite highly (Spearman Rho=0.55 to 0.73). Also the Evaluation and Importance measures did not correlate in the failure situations, suggesting they are independent dimensions.

The Evaluation and Importance measures were correlated in success situations, i.e. people who expected others to respond positively also tended to attach more importance to these views. This is similar to the 'self-enhancing' tendency of people who are not anxious or depressed (Layne, 1983), whereby they selectively attend to positive information about the self after a success experience (Mischel, Ebbesen and Zeiss, 1973). Rosenberg (1979) reported a similar finding from interviews of schoolchildren: More importance was given
to the views of others that tended to think highly of the child, and less concern was shown for the views of those thinking poorly of them.

Hypothesis 2, that the two types of variable would show different relationships with anxiety and other measures of psychopathology, received little support. Social anxiety, as measured by SAD, showed little differentiation. FNE correlated mainly with the Importance measures, but as FNE is an indirect measure of psychopathology (it measures a cognitive domain often associated with social anxiety- fear of negative evaluation) this gives little support to Hypothesis 2, but does support the construct validity of the Importance measures.

Hypothesis 3, that high social anxiety would be linked to a high desire for approval and high concern about disapproval, was not supported. Social anxiety, as measured by SAD, was only linked to the concern with disapproval in failure situations. This finding is in agreement with that of Hartman (1984), that SAD levels were not related to the presence of positive self-statements, only to the presence of negative self-statements.

Hypothesis 4, that social distance between subject and ‘other’ will be related to the importance of the others views, was broadly supported in the failure situations. The views of family were always the most important on average, being significantly higher for both the general and specific measures in failure situations, and for the general measure in success situations. The views of strangers were significantly the least important based on the general measure in failure situations, and just failed to reach significance for the specific measure (t was 1.91, 1.99 required for p<.05, 2-tailed). In the failure situations friends and colleagues tended to come in-between the family and stranger groups, this position being significant for the general measure in failure situations but not quite (see above) for the specific measure.

It was predicted that ‘friends’ were socially closer to the subject than colleagues, and so their views were expected to be of greater importance, whereas they turned out to be similar. It may be that the greater social closeness of friends is offset by the fact that colleagues views are important for influencing career prospects, so that overall they came out fairly level.

The predicted order was not found for success situations, as Strangers views were equally as important as those of Friends and Colleagues. This may be due to the particular situation used, success in public speaking. Public speaking is a common fear, so success
in this task may have greater than usual importance in self-evaluation.

As well as some limitations in the PRQ-1 due to the audience situation appearing to give anomalous results, the other main limitations were the relatively small number of subjects (42), the lack of a control group, and the reliance on one measure of psychopathology (the SAD) with which to link the PRQ-1.

The heterogeneous nature of the clinical subjects was also not ideal, as it would have been interesting to link the PRQ-1 with different diagnoses, but as the collection of adequate numbers of subjects in specific diagnostic categories would have been a major undertaking, it was felt that this should be left until the final version of the PRQ had been developed.
STUDY 2

The main purpose of Study 2 was to refine the PRQ, to replicate some of the findings of Study 1, and to compare low anxiety and high anxiety subjects on the PRQ. New measures of psychopathology were included to further examine links between the PRQ and established scales. A measure of perceived real, as opposed to hypothetical, evaluation by others was also added.

Hypotheses
1. That the gradient of decreasing social closeness of 'others' will correlate with decreasing Importance of others' views in low anxious subjects but NOT in high anxious subjects i.e. Those high in anxiety will be more concerned about the views of distant others than those low in anxiety, but they will be equally concerned about the views of close others, such as family, compared to subjects low in anxiety. This pattern is predicted for social anxiety and general anxiety. This hypothesis was derived mainly from the clinical observations by the Author that led to the present research, where this pattern often occurred in people with general anxiety. Also a high concern about evaluation by others has been identified in social anxiety (e.g. Nichols, 1974).
2. The above pattern will not be found for Likelihood of negative evaluation, where high and low social anxiety subjects will show similar gradients across the five social groups used, but those high in social anxiety will give more negative ratings for each group (and similarly for general anxiety).
3. General anxiety will show a similar pattern of relationships with Importance and Likelihood to that shown by Social anxiety.
4. Depression will relate to the likelihood of evaluation measures but not the importance measures, based on the Beck's (1967) cognitive theory of depression. Beck describes depression as involving a negative view of the self, so a raised perceived likelihood of negative evaluation would be expected. There is little emphasis placed on concern with others views in this theory, so no relationship between depression and the importance measures is predicted.
5. That depressed but not anxious subjects will show lower levels of real rated evaluation by others, again based on Beck's description of the negative view of the self in depression.
Procedure
The first questionnaire was revised, the main changes being:
a). Another level of social closeness was added (acquaintance), as there seemed to be a large gap between Friends/Colleagues and Strangers.
b). The public speaking situation was dropped, as it seemed to give anomalous results (see Discussion of Study 1).
c). The specific questions about the importance of others' views were reduced them from 4-point ratings to yes/no answers, in order to simplify the completion of the questionnaire, and to make them similar to the specific questions about the likelihood of receiving an evaluation.

The Personal Reactions Questionnaire-2 (Appendix 3) therefore consisted of ten social situations, five of social success and five of social failure. In each condition there was one of five social groups that constituted the 'others'. These were, in order of predicted social closeness:
Family > Friends > Colleagues > Acquaintances > Strangers
As in the previous study, in each situation there were:
a). Questions concerning the likelihood of positive or negative evaluation (a general question followed by four specific questions)
b). Questions about the importance of others views (one in general and four specific ones).

In order to see if the order of situations had an effect on the answers given, four sequences were used: N1, N2, P1, and P2. N sequences started with a negative situation and then alternated valence, P sequences started with positive and alternated. 1 sequences went in order Strangers to Family through the predicted closeness gradient, 2 sequences in the reverse order.

Scoring of the PRO-2.
Scoring was as for the PRQ-1, except that:
a). Measures were averaged across five rather than four success and failure situations. As before the General measures had a range of 1 to 4.
b). The Specific Measure of Importance of Others Views was formed from totalling the ‘Yes’ answers to Questions 7 to 10 (giving it a range of 0 to 4), and then averaging this across the five situations.

Other Questionnaires Used.
Changes to the battery of questionnaires used were:
a) The GHQ was dropped, as it showed no meaningful intercorrelations with other scales,
and the Leeds Scales (Snaith, 1976) of anxiety and depression were added. These supplemented the SAD, retained from the previous study, as measures of psychopathology with which to relate the PRQ. The Leeds scales, which consist of 14 questions on one sheet of paper, were chosen rather than separate anxiety and depression scales because of their relative brevity, an important factor when the total battery of questionnaires was quite large.

b) The Cognitive Style Test (Blackburn and Jones, 1985) was added as a measure of depressive cognitions following Beck's approach. The questionnaire gives a measure of depressive distortion concerning the Self, the World, and the Future, in both pleasant and unpleasant situations. The CST uses a similar format to the PRQ: a hypothetical situation followed by a number of possible cognitive responses to the situation, from which the subject has to choose the one they most agree with. The CST was included to examine the relationship between depressive cognitions and the PRQ, with the negative view of the self scale (CST-S) being expected to correlate with the likelihood of negative evaluation scales of the PRQ-2.

c) Five rating scales were devised which asked how highly, on average, the five social groups actually thought of the subject (Views of Others Scale, Appendix 4). These were scored on 1 to 7 scales, where 1 corresponded to 'very badly' and 7 to 'very highly'.

Demographic data on age, sex, and social class was collected.

Subjects
The battery of questionnaires were given to all new referrals from GP's to a Clinical Psychology Department, who were in the age range 18 to 65. The questionnaires were given to the Subjects at the end of their first visit to the Department, after the purpose of the research had been briefly explained, if they were agreeable. Three psychologists participated in the data collection. The psychologist who conducted the initial interview classified the clients problem using a list of common problems that was in use in the Department at that time (see Appendix 2).

A control group was obtained from the APU Subject Panel, a pool of volunteers for psychological research maintained by the MRC Applied Psychology Unit, Chaucer Road, Cambridge.
Results
Data on 108 subjects was collected, 62 clinical subjects and 46 controls. The main types of referral problem were:

- Non-specific anxiety without panic attacks: 23
- Non-specific anxiety with panic attack: 7
- Agoraphobia: 4
- Reactive Depression: 5
- Relationship problems: 9
- Personality problems: 4
- Other: 10

The 'other' category included social anxiety (2), obsessional disorders (2), aggressive behaviour (1), specific phobias (2), psychosomatic disorders (1), sexual problems (1), and eating disorders (1).

Table 2.1 compares the two groups on the demographic data and levels of anxiety and depression. The groups did not significantly differ in terms of age, and although there was a greater proportion of women in the clinical sample, the difference was not significant.

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Clinical Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (Mean, SD)</strong></td>
<td>37.9 (8.7)</td>
<td>35.4 (8.9)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>23 Male</td>
<td>27 Male</td>
</tr>
<tr>
<td></td>
<td>23 Female</td>
<td>35 Female</td>
</tr>
<tr>
<td><strong>Social Class</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&amp;2</td>
<td>35.5%</td>
<td>34%</td>
</tr>
<tr>
<td>3</td>
<td>35.5%</td>
<td>37%</td>
</tr>
<tr>
<td>4&amp;5</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>SAD</strong></td>
<td>10.4 (7.8) *</td>
<td>17.9 (7.1) *</td>
</tr>
<tr>
<td><strong>FNE</strong></td>
<td>11.9 (8.7) *</td>
<td>22.0 (8.4) *</td>
</tr>
<tr>
<td><strong>Anxiety (Leeds)</strong></td>
<td>4.4 (3.6) *</td>
<td>11.0 (4.4) *</td>
</tr>
<tr>
<td><strong>Depression (Leeds)</strong></td>
<td>3.6 (2.6) *</td>
<td>8.7 (3.7) *</td>
</tr>
</tbody>
</table>

* Student's t-test significant at greater than 0.001.
Social class was aggregated into three categories for analysis, to raise the cell frequencies to acceptable levels. There were no significant differences between the two groups. The FNE, SAD, and Leeds Anxiety and Depression scales showed large, significant (Students t-test, p < .001), differences between the groups as expected. The general and specific measures of each PRQ-2 construct were all significantly correlated, varying between 0.42 and 0.74 (see Table 2.2), supporting the construct validity of the questionnaire.

The effect of different orders of questions in the PRQ-2 was analysed using ANOVA to compare the mean scores on the composite scales (Likelihood of Negative Evaluation, General Measure etc.), and on item scores from the first and last pages of the questionnaire, for the four versions of the questionnaire. No significant differences were found for any variable, showing that whether the questionnaire started with a success or failure situation, and went up or down the gradient of social closeness, this appeared to make no discernable difference to the mean levels of the variables.

Table 2.2 Correlations between General and Specific measures of Likelihood and of Importance of an Evaluation.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Clinical Subjects</th>
<th>Control Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures of Likelihood of Negative Evaluation</td>
<td>.72</td>
<td>.49</td>
</tr>
<tr>
<td>Measures of Likelihood of Positive Evaluation</td>
<td>.74</td>
<td>.56</td>
</tr>
<tr>
<td>Measures of Importance attached to Negative Evaluation</td>
<td>.65</td>
<td>.60</td>
</tr>
<tr>
<td>Measures of Importance attached to Positive Evaluation</td>
<td>.42</td>
<td>.54</td>
</tr>
</tbody>
</table>

N.B. All correlations are Pearson's r, p < .001

The likelihood of certain evaluations, and the importance attached to those evaluations, were correlated for the success situations, and the failure situations (Table 2.3).
Table 2.3  Correlations between Likelihood and Importance of Evaluation in the PRQ-2.

<table>
<thead>
<tr>
<th></th>
<th>Clinical Ss</th>
<th>Control Ss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=62</td>
<td>N=46</td>
</tr>
<tr>
<td>Failure situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General measures</td>
<td>.33 (.007)</td>
<td>.21 (.09)</td>
</tr>
<tr>
<td>Specific measures</td>
<td>-.11 (.23)</td>
<td>.19 (.10)</td>
</tr>
<tr>
<td>Success situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General measures</td>
<td>.35 (.003)</td>
<td>.62 (.001)</td>
</tr>
<tr>
<td>Specific measures</td>
<td>.47 (.001)</td>
<td>.59 (.001)</td>
</tr>
</tbody>
</table>

N.B. Spearman Correlations were used. Significance levels in brackets.

In the failure situations, only the clinical subjects showed a significant correlation, and only for the general measure i.e. high likelihood of negative evaluation was linked to greater importance of others' views in that situation. This pattern was not found for the Control subjects. In the success situations, both subject groups showed a linkage between the likelihood of being positively evaluated and the importance of others' views in that situation. This is a similar pattern to that found in Study 1.

The types of measure (likelihood and importance) were tested for correlation between failure and success situations for the same group of 'others' (Table 2.4).

Table 2.4  Correlations between success and failure situations.

<table>
<thead>
<tr>
<th></th>
<th>Clinical Ss</th>
<th>Control Ss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=62</td>
<td>N=46</td>
</tr>
<tr>
<td>Likelihood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>.11 (.21)</td>
<td>.05 (.38)</td>
</tr>
<tr>
<td>Specific</td>
<td>-.13 (.20)</td>
<td>.01 (.48)</td>
</tr>
<tr>
<td>Importance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>.80 (.001)</td>
<td>.89 (.001)</td>
</tr>
<tr>
<td>Specific</td>
<td>.56 (.001)</td>
<td>.32 (.02)</td>
</tr>
</tbody>
</table>

N.B. Spearman Correlations were used. Significance levels in brackets.

The likelihood of negative evaluation and the likelihood of positive evaluation by the same 'others' were not related, for both clinical and control subjects, but the importance of others' views was correlated across failure and success situations.
The correlations between the PRQ-2 and the four clinical scales (SAD, FNE, Leeds Scales of Anxiety and Depression) are given in Table 2.5.

Table 2.5 Correlations of PRQ-2 with clinical scales

<table>
<thead>
<tr>
<th>Personal Reactions Questionnaire-2</th>
<th>Success Situation</th>
<th>Failure Situation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likelihood of</td>
<td>Importance of</td>
</tr>
<tr>
<td></td>
<td>Positive Eval</td>
<td>Others Views</td>
</tr>
<tr>
<td></td>
<td>Gen</td>
<td>Spec</td>
</tr>
<tr>
<td>FNE</td>
<td>-.13</td>
<td>-.22</td>
</tr>
<tr>
<td>SAD</td>
<td>-.30'</td>
<td>-.31'</td>
</tr>
<tr>
<td>Anxiety</td>
<td>-.18</td>
<td>-.34'</td>
</tr>
<tr>
<td>Depression</td>
<td>-.33'</td>
<td>-.39'</td>
</tr>
</tbody>
</table>


FNE correlates mainly with the Importance measures, in both success and failure situations. It also correlated with Likelihood of Negative Evaluation. SAD only correlated with the likelihood scales. High SAD was associated with a high likelihood of negative evaluation and a low likelihood of positive evaluation. Depression showed the same pattern as SAD. Anxiety was mainly associated with likelihood of negative evaluation, and correlated with the specific measure of likelihood of positive evaluation, and with the general measure of importance in negative situations.

The importance attached to the views of 'others', for the five social groupings used in the questionnaire, are compared in Table 2.6 for three groups of subjects: Controls, Clinical subjects with below median SAD (median of clinical subjects), and Clinical subjects with above median SAD. The clinical subjects were split by SAD level as a number of the hypotheses concerned differences in perception between those low and high in social anxiety. Results are given separately for the success and failure situations. The use of general and specific questions gives a degree of internal replication.
### Table 2.6 Importance attached to evaluations by different social groupings.

<table>
<thead>
<tr>
<th></th>
<th>Controls N=45</th>
<th>Clinical Low SAD N=34</th>
<th>Clinical High SAD N=28</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean</td>
<td>10.4</td>
<td>13.2</td>
<td>23.6</td>
</tr>
<tr>
<td>SD</td>
<td>7.8</td>
<td>6.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Importance attached to negative evaluations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td><em>1.80</em></td>
<td><em>1.94</em></td>
<td><em>2.56</em></td>
</tr>
<tr>
<td>Acquaintance</td>
<td>2.24</td>
<td>2.42</td>
<td>2.56</td>
</tr>
<tr>
<td>Colleague</td>
<td>2.76</td>
<td>2.94</td>
<td>3.04</td>
</tr>
<tr>
<td>Friend</td>
<td>3.00</td>
<td>3.09</td>
<td>2.89</td>
</tr>
<tr>
<td>Family</td>
<td>3.46</td>
<td>3.35</td>
<td>3.25</td>
</tr>
<tr>
<td>Specific measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td><em>1.61</em></td>
<td>2.97</td>
<td><em>2.57</em></td>
</tr>
<tr>
<td>Acquaintance</td>
<td>2.48</td>
<td>2.88</td>
<td>2.63</td>
</tr>
<tr>
<td>Colleague</td>
<td>3.27</td>
<td>3.70</td>
<td>3.16</td>
</tr>
<tr>
<td>Friend</td>
<td>3.21</td>
<td>3.30</td>
<td>3.07</td>
</tr>
<tr>
<td>Family</td>
<td>3.70*</td>
<td>3.46</td>
<td>2.96*</td>
</tr>
<tr>
<td>Importance attached to positive evaluations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td><em>1.94</em></td>
<td><em>1.94</em></td>
<td><em>2.14</em></td>
</tr>
<tr>
<td>Acquaintance</td>
<td>2.33</td>
<td>2.46</td>
<td>2.39</td>
</tr>
<tr>
<td>Colleague</td>
<td>2.76</td>
<td>2.76</td>
<td>3.11</td>
</tr>
<tr>
<td>Friend</td>
<td>3.02</td>
<td>3.18</td>
<td>2.79</td>
</tr>
<tr>
<td>Family</td>
<td>3.50</td>
<td>3.41</td>
<td>3.21</td>
</tr>
<tr>
<td>Specific measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td><em>3.07</em></td>
<td><em>3.27</em></td>
<td>2.86</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>3.02</td>
<td>3.00</td>
<td>2.96</td>
</tr>
<tr>
<td>Colleague</td>
<td>3.28</td>
<td>3.41</td>
<td>3.46</td>
</tr>
<tr>
<td>Friend</td>
<td>3.59</td>
<td>3.88</td>
<td>3.63</td>
</tr>
<tr>
<td>Family</td>
<td>3.61</td>
<td>3.85</td>
<td>3.52</td>
</tr>
</tbody>
</table>

* *, @ Mann-Whitney U-test, p<0.05, 2-tailed, comparing across columns.

# Friedman test significant >0.01, comparing five social groups in column.

N.B. General measures have a range of 1-4, Specific measures a range of 0-4.

There were no significant differences between the three groups of subjects in success situations, but there were in failure situations. Clinical subjects high in SAD attributed greater importance to what Strangers thought of them, compared to the other two groups.
(Clinical subjects low in SAD, and Controls). They did not differ for Importance of views of Acquaintances, Colleagues, Friends or Family.

It can be seen from Figure 1 that Controls and Clinical subjects low in SAD showed a gradient of Importance of others' views in failure situations, with the views of the close social groups being more important than the views of distant social groups (Friedman test, p < .01). Clinical Subjects high in SAD did not show this pattern, there being no significant difference between the importance attached to evaluations by the five types of Other (Friedman test, Chi-Squared=9.09, df=4, p=.06).

In order to further test this interaction between types of subject (Controls, low SAD and high SAD formed the GROUP factor) and the importance attached to evaluations by five types of ‘other’, a multivariate analysis of variance was performed, treating the ratings for the five types of ‘other’ as a repeated measure (which formed the OTHERS factor). This departure from the use of non-parametric statistics (which were conservatively chosen because the skewed distributions on many of the scales) seems justified as it permits a direct test of the interaction effect.

The GROUP x OTHERS interaction term was significant for both the general and specific measures of the importance attached to negative evaluations (F=2.59, df=8, p=.009, and F=4.31, df=8, p=.001 respectively). The interaction was not significant for the success situations (F=1.86, df=8, p=.064, and F=.38, df=8, p=.93 for the general and
specific measures of importance respectively), although it approached significance for the general measure.

The clinical subjects were also divided into two groups (split at the median) based on their Anxiety scores on the Leeds scale. These two groups and Controls were compared on importance attached to the views of different groups of 'others', and the results are shown in Figure 2.

![Figure 2: Importance of Others' evaluation of self in failure situation.](image)

A similar pattern emerged to that above, i.e. high anxiety subjects differed from low anxiety subjects and Controls in that they attached more importance to strangers views than did low anxiety subjects and Controls (Kruskal-Wallis 1-way ANOVA, Chi-Square=7.74, p=.02 for General measure, Chi-Square=17.0, p=.0002 for Specific measure). Again the interaction between GROUP (Controls, Low Anxiety and High Anxiety) and OTHERS (Strangers, Acquaintance, Colleague, Friends and Family) was directly tested using multivariate analysis of variance. The general measure of importance did not produce a significant GROUP X OTHER interaction (F=1.64, df=8, p=.11), but the specific measure of importance did (F=5.34, df=8, p=.001).

The three groups of subjects, whether the clinical subjects were split by SAD or Leeds Anxiety levels, did not significantly differ in importance attached to positive evaluations by Others. All groups tended to give greater importance to evaluations by close rather
than distant Others (see Table 2.6 for Controls, high and low SAD groupings). None of the GROUP x OTHERS interactions were significant for the importance attached to positive evaluations.

The likelihood of negative evaluation in failure situations was compared for Controls, Clinical with low SAD, and Clinical with high SAD subjects (see Table 2.7 and Figure 3).

![Fig. 3. Likelihood of negative evaluation by 'Others' - General measure](image)

The high SAD subjects gave the highest ratings of likelihood of negative evaluation for each category of 'others', though they were only significantly higher than low SAD for 'Friends' and 'Colleagues', and only significantly higher than Controls for 'Friends'. The Specific measure of likelihood of negative evaluation gave a similar picture, the high SAD subjects always giving the highest ratings, which were statistically significant for Strangers, Colleagues, and Friends (see Table 2.7).

The likelihood of positive evaluation in success situations showed a reverse pattern: the high SAD group always had the lowest expectation of positive evaluation, although the differences were only occasionally significantly lower than both low SAD and Control subjects (for Colleagues on the general measure, for Acquaintance on the specific measure).
<table>
<thead>
<tr>
<th></th>
<th>Controls N=45</th>
<th>Clinical Low SAD N=34</th>
<th>Clinical High SAD N=28</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Likelihood of negative evaluation in Failure situations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td>1.59</td>
<td>1.63</td>
<td>2.04</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>1.96</td>
<td>2.00</td>
<td>2.41</td>
</tr>
<tr>
<td>Colleague</td>
<td>2.38</td>
<td>1.91</td>
<td>2.46</td>
</tr>
<tr>
<td>Friend</td>
<td>1.39*</td>
<td>1.47</td>
<td>1.89*</td>
</tr>
<tr>
<td>Family</td>
<td>1.26</td>
<td>1.29</td>
<td>1.32</td>
</tr>
<tr>
<td>Specific measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td>1.33*</td>
<td>1.06</td>
<td>1.89*</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>0.72</td>
<td>0.97</td>
<td>1.28</td>
</tr>
<tr>
<td>Colleague</td>
<td>1.13*</td>
<td>1.15</td>
<td>1.96*</td>
</tr>
<tr>
<td>Friend</td>
<td>0.56*</td>
<td>0.65</td>
<td>1.58*</td>
</tr>
<tr>
<td>Family</td>
<td>0.26</td>
<td>0.52</td>
<td>0.59</td>
</tr>
<tr>
<td><strong>Likelihood of positive evaluation in Success situations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td>3.33</td>
<td>3.29</td>
<td>2.93</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>2.65</td>
<td>2.65</td>
<td>2.46</td>
</tr>
<tr>
<td>Colleague</td>
<td>2.78*</td>
<td>2.53</td>
<td>2.11*</td>
</tr>
<tr>
<td>Friend</td>
<td>2.54</td>
<td>2.53</td>
<td>2.32</td>
</tr>
<tr>
<td>Family</td>
<td>3.65</td>
<td>3.52</td>
<td>3.11</td>
</tr>
<tr>
<td>Specific measure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td>3.52*</td>
<td>3.13</td>
<td>2.87</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>2.91*</td>
<td>2.84</td>
<td>2.04*</td>
</tr>
<tr>
<td>Colleague</td>
<td>2.76*</td>
<td>2.38</td>
<td>2.08</td>
</tr>
<tr>
<td>Friend</td>
<td>2.87</td>
<td>2.69</td>
<td>2.48</td>
</tr>
<tr>
<td>Family</td>
<td>3.04*</td>
<td>2.84</td>
<td>2.33</td>
</tr>
</tbody>
</table>

*, @ Mann-Whitney U-test, p<0.05, comparing across columns.

# Friedman test significant >0.05, comparing five social groups in column.

N.B. General measures have a range of 1-4, Specific measures a range of 0-4.

When the clinical subjects were split into high and low Anxiety (Leeds scale) and compared to Controls on the evaluation measures, the pattern was similar to that for SAD. The high Anxiety group always gave the highest ratings for likelihood of negative evaluation in failure situations (particularly for Acquaintances), and the lowest for likelihood of positive evaluation in success situations, although again the differences only occasionally reached statistical significance.
The interaction between GROUP and OTHERS was not significant for likelihood of negative or positive evaluation, whether clinical subjects were split by SAD or Leeds Anxiety level.

**Cognitive Style Test**

The correlations between the CST (Blackburn, 1985) and the PRQ-2/Failure situation measures, FNE, SAD and Leeds scales are given in Table 2.8.

Table 2.8 Correlations of CST with PRQ-2 Failure situation measures and other scales

<table>
<thead>
<tr>
<th></th>
<th>CST-Total</th>
<th>CST-S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of Negative Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>.71 (.000)</td>
<td>.66 (.000)</td>
</tr>
<tr>
<td>Specific</td>
<td>.72 (.000)</td>
<td>.57 (.000)</td>
</tr>
<tr>
<td>Importance attached to Negative Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>.33 (.007)</td>
<td>.35 (.004)</td>
</tr>
<tr>
<td>Specific</td>
<td>-.01 (.45)</td>
<td>.13 (.19)</td>
</tr>
<tr>
<td>FNE</td>
<td>.54 (.000)</td>
<td>.49 (.000)</td>
</tr>
<tr>
<td>SAD</td>
<td>.53 (.000)</td>
<td>.52 (.000)</td>
</tr>
<tr>
<td>Leeds Anxiety</td>
<td>.46 (.000)</td>
<td>.42 (.000)</td>
</tr>
<tr>
<td>Leeds Depression</td>
<td>.44 (.000)</td>
<td>.33 (.005)</td>
</tr>
</tbody>
</table>

NB. Pearson correlations were used, significance levels in brackets.

Pearson correlations were computed rather than Spearman as all the subjects were used giving a large N of 108, so parametric statistics seemed justified. The PRQ-2/Success situation measures are not included as the CST was not expected to correlate with these, as the CST is a measure of negative thinking, and indeed the correlations between the CST and PRQ-2/Success measures were all near zero. The CST-Total score showed quite high correlations with the two aggregate measures of the likelihood of negative evaluation in failure situations (.71 for the general measure, .72 for the specific measure), the levels for CST-Self were slightly lower (.66 for the general measure, .57 for the specific measure). CST-Total had moderate correlations with the four other questionnaires used (.44 to .54), as did CST-Self (.33 to .52).

**Perceived levels of real evaluation**

Subjects were asked to rate how highly the five social groups used in the PRQ-2 thought of the subject, on a seven point scale from Very Badly to Very Well (Views-of-Others...
Scale, Appendix 4). This estimates how the subject perceived they were actually evaluated by others, rather than hypothetically as in the PRQ-2. The levels of actual evaluation for Controls, low Anxiety and high Anxiety subjects are given in Table 2.9.

**Table 2.9 Comparison of Controls, and Clinical subjects with low or high Anxiety, on levels of perceived evaluation by Others.**

<table>
<thead>
<tr>
<th>Others</th>
<th>Controls mean (SD)</th>
<th>Clinical-Low Anxiety</th>
<th>Clinical-High Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>6.07 (.85) *</td>
<td>5.57 (1.50) *</td>
<td>5.23 (1.17) *</td>
</tr>
<tr>
<td>Friends</td>
<td>5.51 (.66) *</td>
<td>5.26 (1.15) *</td>
<td>4.80 (1.13) *</td>
</tr>
<tr>
<td>Colleagues</td>
<td>5.41 (.80)</td>
<td>4.96 (1.00)</td>
<td>5.05 (.67)</td>
</tr>
<tr>
<td>Acquaintances</td>
<td>4.96 (.63)</td>
<td>4.87 (1.01)</td>
<td>4.57 (1.01)</td>
</tr>
<tr>
<td>Strangers</td>
<td>4.46 (.81)</td>
<td>4.40 (.86)</td>
<td>4.31 (1.11)</td>
</tr>
</tbody>
</table>

*, # Kruskal-Wallis test, groups significantly different, p>0.01.

**Fig. 4. Perceived evaluation by Others for Controls, Low Anxiety and High Anxiety groups.**

Y-axis: 7-Very Highly 6-Fairly Highly 5-Quite Well 4-Neutral
The three groups of subjects had significantly different levels for how highly evaluated by the two closest social groups, Family and Friends. Controls gave the highest level of positive evaluation and the High Anxiety group the lowest level of positive evaluation. These results are shown graphically in Figure 4. The apparent interaction between GROUP (Controls, low Anxiety, High Anxiety) and OTHERS (Strangers, Acquaintances, etc.) was tested using multivariate analysis of variance. The interaction was significant (F=2.02, df=8, p=.04). The levels of perceived real evaluation, for high and low depression groups (based on Leeds Depression scores) are given in Table 2.10.

**Table 2.10: Comparison of Controls/Clinical subjects with low Depression, and Clinical Subjects with high Depression, on levels of perceived evaluation by Others.**

<table>
<thead>
<tr>
<th>Others</th>
<th>Controls + Clinical-Low Depression (N=72) mean (SD)</th>
<th>Clinical-High Depression (N=34) mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>6.00 (.90) **</td>
<td>5.03 (1.47) **</td>
</tr>
<tr>
<td>Friends</td>
<td>5.53 (.73) **</td>
<td>4.62 (1.21) **</td>
</tr>
<tr>
<td>Colleagues</td>
<td>5.31 (.81) *</td>
<td>4.93 (.90) *</td>
</tr>
<tr>
<td>Acquaintances</td>
<td>5.01 (.66) **</td>
<td>4.41 (1.10) **</td>
</tr>
<tr>
<td>Strangers</td>
<td>4.47 (.79)</td>
<td>4.24 (1.15)</td>
</tr>
</tbody>
</table>

*, # Oneway Analysis of Variance, comparing low (includes controls) and high depression groups, significantly different, *** p>0.001, * p>0.05.

The Controls were combined with the low depression clinical group as their scores were very similar. The interaction between GROUP (Controls & Low Depression, High Depression) and OTHERS was significant (F=3.14, df=4, p=.02).

The correlations between the perceived level of real evaluation by different 'others', and a) the hypothetical levels of evaluation for success and failure situations derived from the PRQ-2, and b) the clinical scales, are given in Table 2.11. Spearman correlations were used due to the skewed distributions on the Views-of Others Scales. The perceived real level of evaluation and the hypothetical levels from the PRQ-2 were significantly correlated, although only moderately. There were no significant correlations between the perceived levels of real evaluation and the PRQ-2 measures of importance of Others.
views.

All four clinical scales were related to the level of perceived real evaluation by Family and Friends. SAD was the only scale related to perceived evaluation by Strangers.

Table 2.11 Correlations between perceived real evaluation and hypothetical evaluation and clinical scales.

<table>
<thead>
<tr>
<th>Perceived level of real evaluation by:</th>
<th>Family</th>
<th>Friend</th>
<th>Colleague</th>
<th>Acquaint.</th>
<th>Stranger</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNE</td>
<td>-.35**</td>
<td>-.42**</td>
<td>-.32***</td>
<td>-.18'</td>
<td>-.20'</td>
</tr>
<tr>
<td>SAD</td>
<td>-.41**</td>
<td>-.39**</td>
<td>-.30''</td>
<td>-.26''</td>
<td>-.37***</td>
</tr>
<tr>
<td>Anxiety</td>
<td>-.38**</td>
<td>-.33**</td>
<td>-.19'</td>
<td>-.16</td>
<td>-.04</td>
</tr>
<tr>
<td>Depression</td>
<td>-.42**</td>
<td>-.42**</td>
<td>-.27''</td>
<td>-.21'</td>
<td>-.12</td>
</tr>
<tr>
<td>PRQ-Likelihood of Neg Eval (G)</td>
<td>-.28**</td>
<td>-.43**</td>
<td>-.26''</td>
<td>-.40'''</td>
<td>-.41'''</td>
</tr>
<tr>
<td>PRQ-Likelihood of Pos Eval (G)</td>
<td>.33***</td>
<td>.33***</td>
<td>.23'</td>
<td>.30'''</td>
<td>.19'</td>
</tr>
</tbody>
</table>

* Spearman Correlation, p < .05
** Spearman Correlation, p < .01
*** Spearman Correlation, p < .001

Regression Analyses

Multiple regression analysis was carried out to see which PRQ-2 variables best predicted the three clinical scales used: SAD, Leeds Anxiety and Depression. Two derived variables were included in the analysis based on the above findings:

- Evaluative Tone = Likelihood of positive evaluation - Likelihood of negative evaluation.
- Relative Importance = Importance of Family's evaluation of subject - Importance of Strangers' evaluation of subject (separately calculated for General and Specific measures).

The best predictor of SAD was Evaluative Tone alone, (Beta = -.48, R² = .23), i.e. subjects who rated the likelihood of receiving positive evaluation in a success situation as low, and the likelihood of receiving negative evaluation in a failure situation as high, tended to have greater social anxiety.
The best prediction of Leeds Anxiety, accounting for 31% of its variance, was from a combination of Relative Importance, based on the Specific measure (Beta=-.41) and Likelihood of Negative Evaluation, Specific measure (Beta=.36). Subjects who gave similar importance to evaluations by Family and Strangers, giving them a low Relative Importance score, tended to have high anxiety, as did subjects who gave a high likelihood of negative evaluation.

The best predictors of Leeds Depression were 'Likelihood of negative evaluation in failure situation, specific measure' (Beta=.43), and Relative Importance, Specific measure (Beta=-.30). Together these two variables accounted for 29% of the variance in Depression.

Factor Analysis

Principal components analysis of the clinical scales, PRQ-2 scales, perceived real evaluation scales and CST scale for all 108 subjects produced six factors accounting for 80% of the variance. After varimax rotation these became (factor loadings in parentheses):

Factor 1: "Negative thinking" - all CST measures (.93 to .72), PRQ-2/Likelihood of negative evaluation (.69 and .55) and SAD (.33).

Factor 2: "Importance attached to evaluation by Others" - PRQ-2 measures of importance of negative and positive evaluation (.86 to .72), FNE (.66), and Anxiety (.54).

Factor 3: "Perceived evaluation by Others" - Perceived positive evaluation by Family, Friends, Acquaintances and Strangers (.90 to .68), and Likelihood of Negative Evaluation, General measure (.55).

Factor 4: "Likelihood of positive evaluation" - PRQ-2 measures of likelihood of positive evaluation in success situation (.88 and .84).

Factor 5: "Depression" - Depression scale (.82), Perceived positive evaluation by Colleagues (.68), Perceived positive evaluation by Friends (.43), CST-World (.32), Anxiety (.38), Likelihood of Negative Evaluation, Specific measure (.31).

Factor 6: "SAD" - SAD scale (.87), Importance of Negative Evaluation, General measure (.31), Perceived evaluation by Stranger (.58).
Discussion

Each variable on the PRQ-2 was measured in two ways, by General and Specific questions, as a way of checking the construct validity of the measure. The two measures of each variable correlated reasonably highly (.42 to .74), supporting the validity of the measures.

The correlations between the Likelihood of receiving an evaluation by Others, and the Importance of that evaluation, show interesting differences for the Controls and Clinical subjects. In success situations, the two variables are 'yoked' together for both subject groups i.e. if the subject thought Others were likely to positively evaluate them, then they tended to attach importance to this evaluation- a sort of self-enhancing bias. This effect was most clearly seen for the controls. This yoking of the two measures was not found for the Controls in failure situations i.e. a high likelihood of being negatively evaluated was not linked to the importance attached to this evaluation. However, clinical subjects still showed a tendency to yoke the two measures in negative situations, although the correlation was only significant for the general measure of the variables. This tendency to attach importance to negative evaluations from Others would seem to make the Clinical subjects more vulnerable to negative self-evaluation.

The correlations between the PRQ-2 and the clinical scales (FNE, SAD, Leeds Anxiety and Depression) partly replicated the findings of Study 1 which used the previous version of the Personal Reactions Questionnaire, PRQ-1. FNE again correlated mainly with the Importance of Others Views measures, in both success and failure situations. There was also a significant correlation between FNE and the Likelihood of negative evaluation in the failure situation, as with PRQ-1.

The SAD scale showed a different pattern of correlations to that found in Study 1; SAD correlated with the Likelihood and Importance measures of PRQ-1, but only in failure situations, whereas for PRQ-2 it correlated only with the Likelihood of evaluation measures, but in both success and failure situations (high social anxiety was linked to high likelihood of negative evaluation in failure situations, and low likelihood of positive evaluation in success situations). This change could be due to the changes in questionnaire items, although these were minimal for the items concerned, or due to the different subject samples: control subjects as well as clinical subjects completed PRQ-2, but not PRQ-1. However, separate analysis of control and clinical subjects revealed a similar pattern of SAD correlations to the combined results, showing the change from the previous study was not due to the inclusion of the controls.

The Leeds Anxiety scale correlated positively with both the general and specific measures
of likelihood of negative evaluation in failure situations, and negatively with the specific measure of likelihood of positive evaluation in success situations. It also correlated with the general measure of importance of others views in failure situations.

The Leeds Depression scale showed a similar pattern of correlations to the SAD, it correlated with the Likelihood of evaluation measures, in both success and failure situations (high depression was linked to high likelihood of negative evaluation in failure situations, and low likelihood of positive evaluation in success situations).

Hypothesis 1, that the gradient of decreasing social closeness of 'others' will correspond with decreasing Importance of others' evaluations in low anxious subjects, but not in high anxious subjects, was supported (see Figures 1 and 2). This effect was found when SAD scores were used to split the clinical subjects into low and high groups, and also when Leeds Anxiety scores were used (there was substantial overlap between the two groupings). As Hypothesis 1 is essentially predicting an interaction between anxiety level and importance attached to evaluations made by different social groupings, the interaction was directly tested using multivariate analysis of variance. For high and low SAD groups the predicted interaction was significant for both the general and specific measures of importance (p=.009 and p=.001 respectively), and for the high and low Leeds Anxiety groups it was significant for the specific measure of importance (p=.001). This provides strong support for Hypothesis 1.

It seems, therefore, that subjects high in anxiety (social or general) attach high levels of importance to the evaluations 'others' have of them, regardless of who the 'others' are. In contrast, those low in anxiety attach high levels of importance to what close social groups think of them (eg Family), but much less importance to what distant social groups think of them (e.g. Strangers). No prediction was made about intergroup differences in importance attached to positive evaluations by Others, and no differences were found. All groups tended to give greater importance to evaluations by close rather than distant Others. No GROUP X OTHERS interactions were significant.

Hypothesis 2, that high and low anxiety groups will show similar gradients for the Likelihood of Negative Evaluation across the five social groups of 'others' used, but that those high in anxiety will rate more highly the likelihood of receiving a negative evaluation from each social group, was also supported (see Figure 3). However, the difference between the high SAD subjects and low SAD subjects was only significant for
Likelihood of negative evaluation by Strangers, Friends and Colleagues.

Again a similar pattern was found whether the subjects were split using social or general anxiety.

The likelihood of positive evaluation in the success situations showed a reverse pattern: the high anxiety (whether social anxiety or general anxiety) subjects always gave the lowest scores, although the differences between the high anxiety, and low anxiety and Controls, only occasionally reached significance.

The tendency of high anxiety subjects to give higher ratings than controls of the probability of being negatively evaluated is consistent with Butler and Mathews (1983) finding that anxious patients gave higher ratings of the probability of negative events happening to themselves than did controls. However, Butler and Mathews found no differences between anxious and control subjects for the probability of positive events, whereas this study did find a difference, anxious subjects giving lower ratings of the probability of receiving a positive evaluation from others. It appears that anxious people, compared to controls, believe that positive events in general are equally likely to happen to them, but believe that they are less likely to receive positive evaluations from others, a very specific type of positive event.

Further support for Hypothesis 2, that the different anxiety groups would have similar gradients for the likelihood of Negative Evaluation across the five types of ‘others’, came from the failure for any of the GROUP X OTHERS interactions to be significant.

Hypothesis 3, that General anxiety will show a similar pattern of relationships with Importance and Likelihood to that shown by Social Anxiety, was well supported. As described above for Hypotheses 1 and 2, Social Anxiety and General Anxiety gave similar results, although a slight difference emerged in the multivariate tests of the interaction between GROUP and OTHERS, where the General measure of Importance did not produce a significant interaction for high versus low Leeds Anxiety, but it did for high versus low SAD. The Specific measure produced a significant interaction for both. General and Social anxiety showed similar correlations with the PRQ-2 scales (see Table 2.5), the main difference being that SAD did not correlate significantly with the Importance measures, but General Anxiety did for the failure situation, albeit at a low level (.27). They also both loaded on Factor 2 in the factor analysis, together with the Importance of Others views measures. Interestingly the SAD and General Anxiety scales were only moderately correlated (.54, p < .001), suggesting they do measure different aspects of anxiety.
Hypothesis 4, that Depression will relate to the likelihood of evaluation measures but not the importance measures, was supported (see Table 2.5). Depression was linked to a greater likelihood of receiving negative evaluation in failure situations, and a lower likelihood of receiving positive evaluation in success situations. This is consistent with the negative view of the self described in Beck’s (1967) cognitive theory of depression. The results only partly agree with Butler and Mathews (1983), as for the links between anxiety and probability of negative and positive events discussed above. They found that depressed patients gave higher probabilities of negative events happening to themselves, consistent with the present results, but found no association with the probability of positive events, in contrast to the present results where high depression subjects did give lower probability of receiving positive evaluation from others. Again, the difference in finding is probably due to the fact that Butler and Mathews measured probability of positive events in general occurring, whereas the present study looked at a specific type of positive event, the perception of being positively evaluated by others.

Hypothesis 5, that depressed subjects, but not anxious subjects, will show more negative perceived real evaluation by others, was not supported. Both high anxiety and high depression groups tended to have lower perceived levels of positive evaluation by Others than low anxiety or low depression groups i.e. both high anxiety and high depression subjects tended to believe that Others did not think very highly of them. However, as Anxiety and Depression were correlated ($r= .71, p< .001$), the two groups must have a number of subjects in common, confounding the distinction between the high anxiety and high depression groups. Although both high depression and high anxiety groups tended to perceive more negative evaluations from Others, there were some differences between high anxiety and high depression groups. High anxiety subjects believed that close others (Family and Friends) were less positive towards them (typically seeing Family as thinking ‘quite well’ of them rather than ‘fairly highly’, which was typical of the Controls), whereas high depression subjects tended to believe that all groups of Others apart from Strangers were likely to be less positive toward them.

The apparent interaction between GROUP and OTHERS for both anxiety and depression groups was tested using multivariate analysis of variance, as it appeared that both high anxiety and high depression subjects gave more negative ratings for evaluations by close others than for evaluations by distant others. The interaction was significant for both Anxiety groupings ($p= .04$) and for Depression groupings ($p= .02$), showing that both
high psychopathology groupings, compared to low psychopathology/controls, tended to see close others as less likely to be positive about them. It is possible that the lower perceived evaluations from close others given by the psychopathology groups reflects a negative bias, or alternatively that this reflects accurate perception, and that close others were indeed less positive to those suffering psychopathology. The lack of a negative bias being evident for perceived evaluations from Strangers suggests that no generalised bias was operating. It is interesting to note that despite tending to perceive lower evaluations from others than Controls and low depression subjects, the high depression group still gave mean ratings on the positive side of neutral (see Table 2.10- neutral being a rating of 4), i.e. they were less positive rather than more negative about how others saw them. The perceived real evaluations by Others were only loosely correlated with the likelihood of negative or positive evaluation in hypothetical situations (r's between .19 and .43). This lack of close correspondence could be due to the PRQ-2 measuring a cognitive bias in perception of how Others evaluate the subject, but in real life the effect of this bias is counteracted by evidence available in the interaction, for example the way Others actually behave.

The Cognitive Style Test (Blackburn, 1985) appears to be a fairly non-specific measure of negative thinking. It correlated moderately highly with both anxiety and depression scales, and fairly highly with the Likelihood of Negative Evaluation measures from the PRQ-2 (Table 2.8). The latter measures and the CST component scales formed the largest factor in the factor analysis. The CST-World scale also loaded on the Depression factor. Factor analysis produced some unexpected results, in that Leeds Depression did not load on the "negative thinking" factor defined mainly by the CST, which raises questions about the validity of the CST which claims to measure the style of thinking typical of depression. Also SAD formed a factor of its own, when it might have been expected to load on the Negative Thinking factor, as this contained the Likelihood measures, or the Importance factor (although one of the Importance measures also loaded the SAD factor). The regression analyses showed that the best predictor of SAD was a composite variable, Evaluative Tone (Likelihood of positive evaluation in a success situation - Likelihood of negative evaluation in a failure situation). Lower Evaluative Tone was linked to higher SAD (Beta = -.46). Interestingly, general anxiety (Leeds scale) was best predicted from a composite variable based on the importance, not the likelihood, measures. The Relative Importance variable
was formed from: Importance attached to the Family's evaluation of the Subject minus Importance attached to Strangers' evaluation of the subject. Relative Importance had a Beta of -0.43, showing that high Anxiety was linked to low Relative Importance i.e. there was little difference between the importance attached to Family and Strangers evaluations. This is further evidence in support of Hypothesis 1.

Summary
The PRQ-2 meaningfully distinguishes between the likelihood of receiving a negative or positive evaluation from 'others', and the importance attached to that evaluation. Likelihood and Importance show predicted patterns of relationships with other scales, supporting the validity of the distinction.

Studies 1 and 2 demonstrate two clear cognitive 'distortions' linked to high anxiety (the term 'distortion' is used cautiously as there is no evidence as to which groups have the most accurate perception).

High anxiety, both general and social, is linked to a greater concern with the evaluations Strangers have of the Subject, compared to low anxiety/Controls. High and low anxiety subjects do not differ in their concern with what socially close 'others' think of them (Family, Friends and Colleagues), concern is great for both, they only differ in concern attached to evaluations by distant Others.

The results also showed that high anxiety subjects, whether social anxiety or general anxiety, tended to have a greater expectation that others will be critical in failure situations, and a lower expectation that others will be complimentary in success situations, compared to low anxiety and control subjects.
STUDY 3

Introduction
The main area of interest in Studies 1 and 2 was the relative importance of evaluations of the self made by close and distant 'others'. One weakness of the previous questionnaires (PRQ-1 and PRQ-2) was that the different groups of 'others' observed different situations, which limits the comparisons that could be made between the subjects' answers for the five groups of 'others' used. To overcome this problem, the third version of the questionnaire (PRQ-3) had each situation being observed by two groups of 'others', a close group (Family, Friends, Colleague), and a distant group (Strangers). This allows a more direct comparison of the perceived views of close and distant 'others'. By using each pairing of 'others' for two situations, a degree of internal replication was included.

In order to reduce the length of the PRQ-3, only negative situations were used, as these produced the most interesting relationships with the clinical scales. Only 'specific' questions were used, the 'general' questions used previously were dropped. It was thought that the general questions were more open to bias as the intention behind them was fairly clear, and they asked the subject to make generalisations, whereas the specific questions are restricted to the occurrence of a single thought.

It was intended that the PRQ-3 should have demonstrated reliability and validity, and be sufficiently discriminating in the key area of interest (the relative importance attached to the views of close and distant 'others') to be useful in assessing change over time in an individual.

The reliability of the questionnaire was to be assessed by:

a). Item analysis
b). Internal replication.
c). Test-retest for at least 20 subjects.

The validity of the questionnaire was to be assessed by:

a). Correlations with established scales.
b). Pre and post treatment (cognitive behaviour therapy) administration of the questionnaire for at least 20 subjects, relating change in PRQ-3 scores with change in other scales.
c). Using homogeneous diagnostic groups that would have predictable differences in their concern about the evaluations of others.
d). Single case studies, looking at change over time in PRQ-3 scores, other questionnaires, and thought-diary measures.
Hypotheses

1. High anxiety subjects will attach similar levels of importance to the evaluations by close and distant ‘others’. Low anxiety subjects will attach greater importance to the evaluations by close than by distant ‘others’. High and low anxiety subjects will attach similar levels of importance to the evaluations by close ‘others’, but high anxiety subjects will attach greater importance to evaluations by distant ‘others’. This pattern is predicted for both general and social anxiety. This hypothesis is the same as the first hypothesis in Study 2, and constitutes a replication.

2. High anxiety subjects will tend to give greater likelihood of negative evaluation for all groups of ‘others’, compared to low anxiety subjects. Again, this is predicted for both general anxiety and social anxiety. This is a replication of the second hypothesis from Study 2.

3. Likelihood of negative evaluation will be greater for medium social distance ‘others’ (i.e. Friends and Colleagues), compared to close (Family) or distant (Strangers) ‘others’. This is a pattern found in earlier versions of the questionnaire, but no firm conclusions could be made as the groups of ‘others’ each observed a different social situation, which were not equated for their severity as failure experiences. Although this objection still applies to the present version of the questionnaire, there is no a priori reason to expect the predicted pattern, so if the pattern were found then this would give meaningful support to the hypothesis. Also, as each situation is observed by Strangers, the answers for them can be used to compare the severity of the situations.

4. Predicted Intercorrelations of scales

FNE will correlate with both likelihood and importance of negative evaluation, the correlation with importance being significantly higher.

SAD will only correlate with Likelihood of negative evaluation.

Leeds Anxiety will correlate with both likelihood and importance of negative evaluation.

Leeds Depression will only correlate with likelihood of negative evaluation.

These predictions are based on the findings of Study 2.

The Depressive Experiences Questionnaire (see Other Measures below) factor Dependency will correlate highly with importance of negative evaluation, for both close and distant Others. The Self-Criticism factor will correlate highly with likelihood of negative evaluation, for both close and distant Others.

The Irrational Beliefs Test (see Other Measures below) scale Demand for Approval will correlate highly with importance of negative evaluation.
5. In the factor analysis of the results, general anxiety and FNE will load on an importance factor, SAD will load on a likelihood of negative evaluation factor, and Depression on a different factor. This is based on the results found in Study 2.

6. The PRQ-3 will demonstrate adequate reliability and validity.

7. **Diagnostic groups**

   The following relationships (Table 3.1) are predicted between the DSM-III-R (American Psychiatric Association, 1987) diagnostic groups and the scales from the PRQ-3, based partly on previous findings, and partly on theoretical considerations.

   **Table 3.1 Predicted scores of Diagnostic Groups.**

<table>
<thead>
<tr>
<th>PRQ-3 scales</th>
<th><strong>Likelihood of Negative Evaluation by Others</strong></th>
<th><strong>Concern if Negatively Evaluated by Others</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Close others</strong></td>
<td><strong>Strangers</strong></td>
</tr>
<tr>
<td>Controls</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>Generalised Anxiety Disorder</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>Specific Phobia</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>Adjustment disorder with anxious mood</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Adjustment disorder with depressed mood</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Dysthmic Disorder</td>
<td>high</td>
<td>high</td>
</tr>
</tbody>
</table>

   Controls should be low compared to the other groups on all the scales. Generalised Anxiety Disorder is characterised by "apprehensive expectation", anticipation of bad things happening to the subject, according to DSM-III-R. Butler and Mathews
(1983) found that GAD patients gave high likelihood of negative events and high cost for these events compared to controls. GAD patients should therefore have a higher level of expectation that close others would negatively evaluate than controls, but probably not as high as the conditions like social phobia where there is a clear social element. A medium level is therefore predicted.

In Panic Disorder the main symptom, panic attacks, is not associated with any specific type of situation. DSM-III-R says that the disorder is often associated with apprehensive expectation, as in GAD, so all levels are predicted as medium.

In Agoraphobia the panics tend to occur in public places, so there is a clear social element to the disorder. However, Beck and Emery (1985) state that the agoraphobic is hypersensitive to internal cues suggestive of impending mental or physical collapse, rather than to social evaluation. Clinical observation by the present Author suggests that the agoraphobic often fears physical collapse because of the effect it would have on social evaluation, so although the social evaluation element is less than in social phobia, it is often present to a degree. An intermediate position between GAD and Social Phobia is therefore predicted. Agoraphobics should have high expectations that strangers will negatively evaluate and high concern if they do, and as their anxiety is linked to being away from home, and as they often prefer to be accompanied by close others, their expectation that close Others will negatively evaluate, and concern about this evaluation, should be medium.

Social phobia is defined as "fear of... situations in which the individual may be exposed to scrutiny by others...(or) may behave in a manner that will be embarrassing or humiliating" (DSM-III-R, 1987). Beck and Emery (1985) state that the social phobic is hypersensitive to signals from other people regarding their acceptability, suggesting they would tend to give a high likelihood of negative evaluation. Social phobics should therefore score highly both on the likelihood of negative evaluation by others, and concern if negatively evaluated by others. As the literature doesn't differentiate close and distant others, the same predictions are made for both.

Specific phobics (spider phobics were used) should show the same pattern as Controls (i.e. lower than the other groups on all scales), as their problems do not have an inter-personal element.

Adjustment disorders are a short term reaction to an identifiable event, with no clear implications for interpersonal evaluation. Both types of adjustment disorder are therefore predicted to have medium levels on the PRQ-3 scales. Medium, rather than low levels are predicted as by definition they are psychologically more reactive than most people.
Dysthymic Disorder is characterised by feelings of inadequacy, self-deprecation and a pessimistic attitude (DSM-III-R, 1987) so high levels of likelihood of negative evaluation by others are likely, for both close and distant others. Concern about negative evaluation is predicted to be at medium levels, above that of controls (see Butler and Mathews, 1983), but the social withdrawal and lack of interest in outside events typical of the depressive state suggest that concern about negative evaluation would not be as high as that for social phobia.

PROCEDURE

Study 3 had three sections:

a). Administration of a battery of questionnaires to new G.P. referrals to a Clinical Psychology Out-Patient Department.

The questionnaires were given to the patient at the end of the first assessment interview if, based on information in the referral letter and the content of the interview, they appeared to fall into one of the diagnostic categories required for the research (final classification into DSM-III-R category was done later). The purpose of the questionnaires was explained in general terms as researching the links between the way people think and the type of psychological problems they have. If the person agreed to complete them they were asked to bring the completed questionnaires to their second interview. This procedure ensured that the questionnaires were filled in prior to commencement of therapy which might have influenced the answers given.

If the questionnaires were returned, at the end of the session the Clinical Psychologist completed a research form documenting the demographic data of the subject and allocated them to a DSM-III-R category. Three clinical psychologists (the author and two experienced colleagues) took part in the data collection. All were provided with copies of the descriptions of the disorders and their diagnostic criteria (see Appendix 5 for the criteria). As final allocation was only done at the end of the second interview, this gave the clinician the opportunity to check the accuracy of the provisional diagnosis reached in the first session by seeking specific information relevant to the criteria e.g. for Dysthymia the depressive syndrome has to have been present for most of the last two years.

The reliability of the system used for allocating DSM-III-R criteria is uncertain, as none of the published reliability studies used a similar procedure. These studies have mainly used a structured interview (e.g. The Structured Clinical Interview, Spitzer et al, 1992), but this would have meant the clinicians having to change their clinical practice, with resulting effects on patient care, over the considerable time that data collection took place.
(over a year), and this was deemed unacceptable. However, the DSM-III, the predecessor of the DSM-III-R, was shown in field trials using unstructured interviews by clinicians with no specific training to have good reliability for Anxiety Disorders (Kappa=.72), Affective Disorders (Kappa=.83) and Adjustment Disorders (Kappa=.68) (American Psychiatric Association, 1980). More recent reliability studies of the DSM-III-R using structured interviews did not give superior results to the DSM-III field trials (Williams et al, 1992). Commenting on this finding Williams et al suggest that clinicians with a high level of expertise do not increase reliability with structured interviews, and state that they knew of no major study that directly compared the reliability of diagnostic criteria with and without a structured interview. Given that each of the three clinicians in the present study had at least fifteen years post-qualification experience in dealing with people in the diagnostic categories used in this study, then their use of the detailed diagnostic criteria of the DSM-III-R is likely to be of adequate reliability.

To supplement the sample, twenty specific phobics were recruited through the Cambridge Subject Panel (with kind permission from the MRC Applied Psychology Unit, Cambridge).

The control subjects were found by asking partners or friends of referred patients to complete the battery of questionnaires (with instructions that this must be done independently from the patient). This method was chosen as it gives some matching of social class and social environment to the clinical group. It could be argued that the fact that they were all paired with people with psychological problems meant they were a biased sample, but given the high prevalence of psychological problems in the general population this would not seem to be that unusual a situation.

b. Reliability Check Test-retest data was gathered by giving 26 subjects from the Clinical Psychology out-patient sample a second set of questionnaires to complete at the end of their second interview. Ideally there would not have been a therapy session in the test-retest interval, as this might affect retest responses, but this was not feasible in the clinical setting used to gather subjects. It was thought that the second therapy session would not have significant effects on the cognitions being measured, as the emphasis was still on information gathering, and no explicit attempt to change cognitions would have been made. As sessions were at two week intervals, the test-retest interval should have been about two weeks.

The subjects for the reliability check were consecutive referrals, no special selection criteria were used. It was made clear to retest subjects that this second administration was not to check their consistency of answering, as some expressed concern that they might
contradict their earlier answers. They were instructed to try and forget their answers from the first administration, and concentrate on how they felt at the time of the second administration. The second battery of questionnaires only included the PRQ-3 and the FNE and SAD.

c). Validity Check. 24 subjects were given a second administration of the questionnaires at the end of their therapy. Subjects were selected for this group on the basis that an appreciable change in their cognitions about self-evaluation was likely, as these cognitions had received attention during therapy. Most subjects had received cognitive-behaviour therapy. The questionnaires used were the PRQ-3, SAD, FNE, and the Leeds Anxiety and Depression scales.

**Measures used.**

The Personal Reactions Questionnaire-3 (PRQ-3, see Appendix 6) was a development of the PRQ-2, as mentioned in the Introduction to Study 3. The main differences were:

a). Only social failure situations were used, as these produced the most meaningful results in the earlier studies, in order to reduce the length of the questionnaire. This was particularly important as it was intended that the PRQ-3 be clinically useful, which would involve repeated administration to single cases, and so a relatively short questionnaire would be more acceptable to respondents.

b). Each situation was observed by two groups of 'others', a socially close (Family, Friend, Colleague) and a socially distant (Strangers) group. This gave three pairings of 'others': Family and Strangers, Friends and Strangers, Colleagues and Strangers. Two situations were devised for each pairing, giving six situations in total. The order used was Friends, Colleague, Family, Family, Colleague, Friend, i.e. the sequence was reversed half way through to give some counterbalancing.

c). For each situation there were four sections:

i. What the socially close 'others' were likely to think of the subject.

ii. What the Strangers were likely to think of the subject.

iii. How concerned they would be if the close 'other' negatively evaluated the subject.

iv. How concerned they would be if the Strangers negatively evaluated the subject.

Each section had six possible negative thoughts the 'others' might have. In sections i and ii the subjects had to rate the likelihood of these thoughts, and for sections iii and iv they had to rate their concern if the 'other' did have the thought. Seven point scales, anchored at each end, were used.

The use of seven point scales, rather than the yes/no answers of the previous
questionnaires, was intended to improve the ability of the questionnaire to discriminate small changes.

**Scoring of the PRO-3.**

For each situation there were four groups of six questions, each question being answered on a 1 to 7 scale, with 7 corresponding to the highly critical/highly concerned end of the scale. Each group of six questions was averaged to give a first-level scale (with a range of 1 to 7), as follows:

<table>
<thead>
<tr>
<th>Situation</th>
<th>Items</th>
<th>Scale</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Town, with Friend</td>
<td>1-6</td>
<td>What Friend will think of you</td>
<td>TOWFRTH</td>
</tr>
<tr>
<td></td>
<td>7-12</td>
<td>What Strangers will think of you</td>
<td>TOWSTTH</td>
</tr>
<tr>
<td></td>
<td>13-18</td>
<td>Concern if Friend negatively evaluates</td>
<td>TOWFRCO</td>
</tr>
<tr>
<td></td>
<td>19-24</td>
<td>Concern if Strangers negatively evaluate</td>
<td>TOWSTCO</td>
</tr>
<tr>
<td>B. Work, with Colleague</td>
<td>1-6</td>
<td>What Recruit (Stranger) will think</td>
<td>WORSTTH</td>
</tr>
<tr>
<td></td>
<td>7-12</td>
<td>What Colleagues will think of you</td>
<td>WORCLTH</td>
</tr>
<tr>
<td></td>
<td>13-18</td>
<td>Concern if recruits (ST) negatively evaluate</td>
<td>WORSTCO</td>
</tr>
<tr>
<td></td>
<td>19-24</td>
<td>Concern if Colleagues negatively evaluate</td>
<td>WORCLCO</td>
</tr>
<tr>
<td>C. Restaurant, with Family</td>
<td>1-6</td>
<td>What Family will think of you</td>
<td>RESFATH</td>
</tr>
<tr>
<td></td>
<td>7-12</td>
<td>What Strangers will think of you</td>
<td>RESSTTH</td>
</tr>
<tr>
<td></td>
<td>13-18</td>
<td>Concern if Family negatively evaluate</td>
<td>RESFACO</td>
</tr>
<tr>
<td></td>
<td>19-24</td>
<td>Concern if Strangers negatively evaluate</td>
<td>RESSTCO</td>
</tr>
<tr>
<td>D. Job rejection, with Family</td>
<td>1-6</td>
<td>What Visitors (ST) will think of you</td>
<td>JOBSTTH</td>
</tr>
<tr>
<td></td>
<td>7-12</td>
<td>What Family will think of you</td>
<td>JOBFATH</td>
</tr>
<tr>
<td></td>
<td>13-18</td>
<td>Concern if Visitors (ST) negatively evaluate</td>
<td>JOBSTCO</td>
</tr>
<tr>
<td></td>
<td>19-24</td>
<td>Concern if Family negatively evaluate</td>
<td>JOBFACO</td>
</tr>
<tr>
<td>E. Party, with Colleague</td>
<td>1-6</td>
<td>What Colleague will think of you</td>
<td>PARCLTH</td>
</tr>
<tr>
<td></td>
<td>7-12</td>
<td>What Others (ST) will think of you</td>
<td>PARSSTTH</td>
</tr>
<tr>
<td></td>
<td>13-18</td>
<td>Concern if Colleague negatively evaluates</td>
<td>PARCLCO</td>
</tr>
<tr>
<td></td>
<td>19-24</td>
<td>Concern if Others (ST) negatively evaluate</td>
<td>PARSTCO</td>
</tr>
</tbody>
</table>
The first level scales were combined, by averaging, to give second and third level scales as shown in Table 3.4. As each of the close social groups observed two of the six situations, these were averaged to give ‘second level’ measures of how likely close others were to negatively evaluate (producing scales for Friends, Family and Colleagues), and how concerned the subject would be if these three groups did negatively evaluate them. The three Likelihood measures were averaged to give the third level scale ‘Likelihood of Negative Evaluation by Close Others’. The three Concern measures were averaged to give ‘Concern if Negatively Evaluated by Close Others’.

As each situation was observed by a group of strangers, the six scales measuring the likelihood that strangers would negatively evaluate were averaged to give ‘Likelihood of Negative Evaluation by Strangers’, and the six scales measuring concern if strangers did negatively evaluate the person were averaged to give ‘Concern if Negatively Evaluated by Strangers’. Averaging was used to calculate the variables so that the resulting values could easily be referred back to the original scales. All variables had a range of 1-7.

**Other Measures.**

The other questionnaires used were the FNE and SAD, Leeds Anxiety and Depression Scales, as used earlier, and two new additions. The Depressive Experiences Questionnaire (DEQ) (Blatt, D’Afflitti & Quinlan, 1976) was added as it is claimed to produce factors of Dependency and Self-criticism that appear similar to the two dimensions of the PRQ, Concern attached to Others’ Evaluations, and Likelihood of Negative Evaluation. The Dependency factor contains concerns about rejection and wanting to be close to others, suggesting similarity to the Concern attached to Others’ Evaluations dimension. The Self-criticism factor contains items about feeling guilty and insecure, and assuming blame, suggesting similarity to the Likelihood of Negative Evaluation dimension. The DEQ was scored by a computer program (see Appendix 7) produced by Blatt. This produces three factor scores (mean=0, SD=1), Dependency, Self-Criticism, and Efficacy.

Jones’ Irrational Belief Test (IBT) (1968) was used as it is the most widely used measure of Ellis’s irrational beliefs (1962). The IBT claims to measure ten commonly occurring irrational beliefs, and of particular interest to the present research is the first one, Demand
for Approval. This is described as "The idea that it is a dire necessity for an adult human being to be loved and approved by virtually every significant other person in his community" (p. 5).

Data were also collected on the age and social class of the subjects.

Data analysis was done on an IBM-PC Compatible computer, using SPSS/PC+ 4.0, a version of SPSS for microcomputers (SPSS Inc, 1990). Significance levels are all two-tailed unless specified otherwise.

RESULTS

i) Subject Characteristics.

The demographic characteristics of the 196 subjects are given in Table 3.2. All diagnostic categories had a predominance of females, this was most noticeable for the spider phobics, least apparent for Generalised Anxiety Disorder. However, the differences between diagnostic categories were not significant (Chi-Square = 12.6, df = 8). There were also no significant age differences between the categories.

Table 3.2. Demographic Characteristics of Subjects.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Sex (% Male)</th>
<th>Age (Mean, SD)</th>
<th>Social Class (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1&amp;2</td>
</tr>
<tr>
<td>Controls</td>
<td>40</td>
<td>48%</td>
<td>39.1 (9.8)</td>
<td>48%</td>
</tr>
<tr>
<td>Adj Dis /Depress</td>
<td>18</td>
<td>28%</td>
<td>38.1 (9.9)</td>
<td>67%</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>14</td>
<td>43%</td>
<td>41.8 (11.0)</td>
<td>43%</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>17</td>
<td>29%</td>
<td>43.1 (12.7)</td>
<td>23%</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>13</td>
<td>38%</td>
<td>33.2 (11.5)</td>
<td>15%</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>26</td>
<td>27%</td>
<td>38.6 (10.3)</td>
<td>31%</td>
</tr>
<tr>
<td>Gen Anx Disorder</td>
<td>25</td>
<td>48%</td>
<td>38.3 (11.1)</td>
<td>46%</td>
</tr>
<tr>
<td>Adj Dis /Anxiety</td>
<td>22</td>
<td>32%</td>
<td>40.1 (10.9)</td>
<td>55%</td>
</tr>
<tr>
<td>Spider Phobia</td>
<td>21</td>
<td>10%</td>
<td>45.1 (13.8)</td>
<td>75%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>196</td>
<td>35%</td>
<td>39.8 (11.3)</td>
<td>46%</td>
</tr>
</tbody>
</table>

Social Class did show some variation between categories (Chi-Square = 42.3, df = 16,
p = .0004). Data were aggregated as shown in Table 3.2 to raise cell frequencies to an acceptable level for analysis. Percentages in each class grouping are shown to facilitate comparison. It can be seen that overall there were more people in the "higher" social classes, and this tendency was most marked for Spider Phobics and Adjustment Disorder with Depressed Mood (ADDM). In contrast, two categories (Agoraphobia and Social Phobia) showed a dominance of social classes 4 and 5.

The uneven distribution of social class probably had little effect on the results as social class did not affect any of the PRQ-3 scales, FNE or Depression (One way ANOVA not significant). Social class was related to SAD, Social Class 4 being higher than Social Class 1, and on Leeds Anxiety, Social Class 5 was higher than Social Class 1 (both One way Anova, Student-Newman-Keuls range test, p < .05).

However, the correlation with SAD and Anxiety may be an artifact due to Agoraphobics and Social Phobics having the highest Anxiety and SAD scores respectively, as well as a predominance of social classes 4 and 5.

The scores of the diagnostic categories on the clinical scales are given in Table 3.3.

### Table 3.3 Clinical Scale scores of Diagnostic categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>SAD</th>
<th>FNE</th>
<th>Leeds Scales</th>
<th>DEQ Factor Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Anxiety</td>
</tr>
<tr>
<td>Controls</td>
<td>8.9</td>
<td>11.4</td>
<td>5.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Adj Dis /Depress</td>
<td>11.9</td>
<td>19.4</td>
<td>8.4*</td>
<td>8.6</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>19.2</td>
<td>23.6</td>
<td>9.9*</td>
<td>10.5*</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>19.0</td>
<td>21.2</td>
<td>13.1*</td>
<td>8.2*</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>19.6</td>
<td>22.6</td>
<td>9.2*</td>
<td>7.2</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>15.6</td>
<td>20.2</td>
<td>11.1*</td>
<td>6.8*</td>
</tr>
<tr>
<td>Gen Anx Disorder</td>
<td>16.1</td>
<td>18.9</td>
<td>10.1*</td>
<td>6.3*</td>
</tr>
<tr>
<td>Adj Dis /Anxiety</td>
<td>16.2</td>
<td>22.8</td>
<td>9.7*</td>
<td>6.6*</td>
</tr>
<tr>
<td>Spider Phobia</td>
<td>9.4</td>
<td>13.8</td>
<td>6.4</td>
<td>4.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14.2</td>
<td>18.3</td>
<td>8.9</td>
<td>6.5</td>
</tr>
</tbody>
</table>

* Category significantly different to Controls (p = .05) on that clinical scale, One way ANOVA, Student-Newman-Keuls Procedure.

NA - Not Administered
The Dysthymics scored highly on all the clinical scales except DEQ-Efficacy, and was the highest category on Leeds-Depression (where they were significantly higher than all categories other than Agoraphobia and Adjustment Disorder with Depressed Mood) and on DEQ-Self Criticism. The other 'depression' category, Adjustment Disorder with Depressed Mood, produced lower scores than the Dysthymics, and failed to significantly differ from Controls on SAD and DEQ-Dependency.

The anxiety categories scored highly on most of the scales also, with Agoraphobics with Panic attacks scoring particularly high on Leeds-Anxiety, where they were significantly higher than all diagnoses other than Panic Attacks and Dysthymia.

The Spider Phobics failed to differ from Controls on any scale (The DEQ was not administered to this group), suggesting that their problem was highly specific and not linked with wider psychopathology.

ii). Reliability of PRQ-3.

Cronbach's Alpha, an internal consistency measure of reliability, was calculated for all the scales derived from the PRQ-3. The results are shown in Table 3.4.

All the scales had high Alphas, the lowest being .78 for the first-level scale TOWFRTH (what Friends would Think in the Town situation). Inspection of item-total correlations showed that one item (Question 2), concerning how likely it was that the friend would think "You must be drunk", did not correlate very highly with the other items in the scale. One subject commented that the Friend, being with you, would know that this was not the case. The other 5 items in the scale are more a matter of opinion, and so better measure the 'evaluation expectations' of the subject.

One factor that may have exaggerated the internal consistency was the observed response tendency to give the same rating to each block of six questions. It appeared that some subjects did not answer each question individually, but did some 'overall' estimate, and then gave the six questions equal ratings.

The stability of the PRQ-3 was measured by re-testing a subgroup of 26 subjects, giving them the PRQ-3, SAD, FNE, and Leeds Anxiety and Depression scales at their second interview. The test-retest gap was 23 days on average (SD of 10 days). This was a longer interval than intended, it seems that many subjects put off completing the questionnaires for the second time until just before their third interview, when they had to hand them back.

No special selection criteria were used to get the 26 subjects. The changes and correlations of the scales between the two administrations of the PRQ-3 are shown in Table 3.5.
Table 3.4: Scales derived from PRO-3 and their Reliability Coefficients
(Cronbach's Alpha), and Test-Retest Correlations.

<table>
<thead>
<tr>
<th>Situation, Items</th>
<th>1st Level Scale</th>
<th>2nd Level Scale</th>
<th>3rd Level Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, 1-6</td>
<td>TOWFRTH $\alpha = .78$</td>
<td>FRTH $\alpha = .88$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY CLOSE OTHERS $\alpha = .96$</td>
</tr>
<tr>
<td></td>
<td>$r = .90, p = .001$</td>
<td>$r = .47, p = .001$</td>
<td>$r = .78, p = .001$</td>
</tr>
<tr>
<td>B, 7-12</td>
<td>RESFATH $\alpha = .89$</td>
<td>FATH $\alpha = .92$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .47, p = .001$</td>
<td>$r = .76, p = .001$</td>
<td>$r = .70, p = .001$</td>
</tr>
<tr>
<td>C, 13-18</td>
<td>TOWFRCO $\alpha = .86$</td>
<td>FRCO $\alpha = .92$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .42, NS$</td>
<td>$r = .54, p = .01$</td>
<td>$r = .53, p = .003$</td>
</tr>
<tr>
<td>D, 19-24</td>
<td>RESFACO $\alpha = .90$</td>
<td>FACO $\alpha = .96$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .45, NS$</td>
<td>$r = .75, p = .001$</td>
<td>$r = .70, p = .001$</td>
</tr>
<tr>
<td>E, 13-18</td>
<td>PARCLTH $\alpha = .88$</td>
<td>CLTH $\alpha = .92$</td>
<td>CONCERN IF NEGATIVELY EVALUATED BY STRANGERS $\alpha = .98$</td>
</tr>
<tr>
<td></td>
<td>$r = .54, p = .001$</td>
<td>$r = .83, p = .001$</td>
<td>$r = .53, p = .003$</td>
</tr>
<tr>
<td>F, 19-24</td>
<td>TOWSTTH $\alpha = .86$</td>
<td>STTH-A $\alpha = .94$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .63, p = .001$</td>
<td>$r = .54, p = .01$</td>
<td>$r = .53, p = .003$</td>
</tr>
<tr>
<td>G, 1-6</td>
<td>RESSTTH $\alpha = .93$</td>
<td>STTH-B $\alpha = .89$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .69, p = .001$</td>
<td>$r = .85, p = .001$</td>
<td>$r = .80, p = .001$</td>
</tr>
<tr>
<td>H, 7-12</td>
<td>WORSTTH $\alpha = .90$</td>
<td>STTH-C $\alpha = .92$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .75, p = .001$</td>
<td>$r = .83, p = .001$</td>
<td>$r = .80, p = .001$</td>
</tr>
<tr>
<td>I, 1-6</td>
<td>PARSTCC $\alpha = .86$</td>
<td>STCC-A $\alpha = .94$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .54, p = .01$</td>
<td>$r = .85, p = .001$</td>
<td>$r = .80, p = .001$</td>
</tr>
<tr>
<td>J, 19-24</td>
<td>TOWSTCC $\alpha = .92$</td>
<td>STCC-B $\alpha = .95$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .54, p = .01$</td>
<td>$r = .54, p = .01$</td>
<td>$r = .53, p = .003$</td>
</tr>
<tr>
<td>K, 1-6</td>
<td>RESSTCC $\alpha = .96$</td>
<td>STCC-B $\alpha = .95$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .51, p = .01$</td>
<td>$r = .54, p = .01$</td>
<td>$r = .53, p = .003$</td>
</tr>
<tr>
<td>L, 19-24</td>
<td>WORSTCC $\alpha = .95$</td>
<td>STCC-C $\alpha = .95$</td>
<td>LIKELIHOOD OF NEGATIVE EVALUATION BY STRANGERS $\alpha = .97$</td>
</tr>
<tr>
<td></td>
<td>$r = .31, NS$</td>
<td>$r = .85, p = .001$</td>
<td>$r = .80, p = .001$</td>
</tr>
</tbody>
</table>
### Table 3.5. Changes in PRQ-3 scales, SAD and FNE from Test to Retest.

<table>
<thead>
<tr>
<th></th>
<th>Test-Retest Change (t-test)</th>
<th>Test-Retest Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of Negative Evaluation by Close Others</td>
<td>-.04 (NS)</td>
<td>r=.76 p&lt;.001</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by Close Others</td>
<td>-.59 (t=2.27, p=.02)</td>
<td>r=.55 p&lt;.002</td>
</tr>
<tr>
<td>Likelihood of Negative Evaluation by Strangers</td>
<td>-.28 (NS)</td>
<td>r=.70 p&lt;.001</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by Strangers</td>
<td>-.66 (t=2.17, p=.02)</td>
<td>r=.53 p&lt;.003</td>
</tr>
<tr>
<td>SAD</td>
<td>.28 (NS)</td>
<td>r=.81, p&lt;.001</td>
</tr>
<tr>
<td>FNE</td>
<td>.33 (NS)</td>
<td>r=.86, p&lt;.001</td>
</tr>
</tbody>
</table>

N.B. All significances are 1-tailed, as direction of change was predicted.

The two scales measuring likelihood of negative evaluation (from close others and from strangers) were reasonably stable (Correlations of .76, p=.001 and .70, p=.001 respectively), but the scales of Concern if Negatively Evaluated by Others were less stable (correlations of .55, p=.002 for Close Others, and .53, p=.003 for Strangers). These figures can be compared to the test-retest coefficients of .68 and .78 for the SAD and FNE (Watson and Friend, 1969). The relatively low stability in the Concern scales could be due to inadequate reliability of the scales, or due to genuine changes over the period between administrations (an average of 23 days).

Analysis of the second-level scales showed a similar pattern of stability (see Table 3.4). All the 'Likelihood of Negative Evaluation by Others' scales, whether the Others were Friends, Family, Colleagues or Strangers, were quite highly correlated between the two administrations (r's between .47 and .90, five out of six were significant at the .001 level), whereas the 'Concern if Negatively Evaluated' scales produced lower correlations, three failed to correlate above the .01 level.

As the lower stability was consistent across the scales measuring Concern with Others evaluations, it seems likely that this reflects a genuine change in respondents attitudes, rather than a lack of reliability. This is supported by the internal consistency coefficients, which were equally high for the 'Concern' scales as the 'Likelihood' scales. It was also
supported by the fact that the changes were in the therapeutic direction (i.e. be lower on retest), which was consistent with therapeutic expectations. The changes in the Concern measures correlated with change in FNE from test to retest (for Concern if Negatively Evaluated by Close Others, \( r = .60, p = .004 \), and for Concern if Negatively Evaluated by Strangers, \( r = .57, p = .007 \)), again suggesting that it was a real change and not unreliability in the measure.

Interestingly, change in 'Concern if Negatively Evaluated by Strangers' also correlated with change in SAD from test to retest \( (r = .44, p = .03) \).

iii) Validity of the PRO-3.
There are three separate second-level scales measuring the likelihood of negative evaluation by Strangers, STTH-A, STTH-B, STTH-C. These are each based on two different situations of social failure. If the scales are measuring a single construct then they should correlate highly. Similarly, the three scales measuring the Concern if Negatively Evaluated by Strangers should be strongly associated. The intercorrelations of the scales of likelihood of negative evaluation by Strangers were:

- STTH-A and STTH-B, \( r = .75 (p = .001) \)
- STTH-A and STTH-C, \( r = .77 (p = .001) \)
- STTH-B and STTH-C, \( r = .70 (p = .001) \)

These moderately high correlations suggest that about half the variance in the scales is attributable to the construct in common.

The intercorrelations of the scales of Concern if Negatively Evaluated by Strangers were:

- STCO-A and STCO-B, \( r = .81 (p = .001) \)
- STCO-A and STCO-C, \( r = .81 (p = .001) \)
- STCO-B and STCO-C, \( r = .70 (p = .001) \)

Again, about half the variance in the scales appears to be due to the construct being measured.

A further test of construct validity comes from the fact that each close social group observed two situations, giving two measures of Likelihood of negative evaluation by Family, two measures of Likelihood of negative evaluation by Friend, and two measures of Likelihood of negative evaluation by Colleagues. There were also two measures of each of the Concern variables. The correlations between these measures was:

- Likelihood of Negative Evaluation by Family (across 2 situations), \( r = .54 \)
- Likelihood of Negative Evaluation by Friends (across 2 situations), \( r = .53 \)
- Likelihood of Negative Evaluation by Colleagues (across 2 situations), \( r = .59 \)
Concern if Negatively Evaluated by Family (across 2 situations), $r = .69$
Concern if Negatively Evaluated by Friends (across 2 situations), $r = .61$
Concern if Negatively Evaluated by Colleagues (across 2 situations), $r = .57$
(all correlations significant at .001 level, one-tailed).
The measures shared between 28% and 48% of their variance across the two situations.
This seems sufficient to support the existence of the underlying construct, but clearly the majority of the variance seems to be situation specific.
To further test of the validity of the PRQ-3 a sample ($N=24$) of subjects were given the PRQ-3, SAD, FNE, and Leeds Anxiety and Depression scales at the end of their therapy (mean gap 13 months, SD 8.7). This group had the following diagnostic mix: Adjustment Disorder with Depressed Mood, 4; Dysthymia, 4; Agoraphobia with panic attacks, 2; Social Phobia, 2; Panic Disorder, 5; Generalised Anxiety Disorder, 3; Adjustment Disorder with anxious mood, 4.

Table 3.6 Changes in Questionnaire scales from test to retest at end of therapy.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean change</th>
<th>SD change</th>
<th>Change range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of Negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation by Close Others</td>
<td>23</td>
<td>.48*</td>
<td>1.06</td>
<td>-.97 to 4.22</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by Close Others</td>
<td>23</td>
<td>1.07**</td>
<td>1.54</td>
<td>-1.58 to 4.39</td>
</tr>
<tr>
<td>Likelihood of Negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation by Strangers</td>
<td>23</td>
<td>.49*</td>
<td>1.13</td>
<td>-1.06 to 4.03</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by Strangers</td>
<td>23</td>
<td>1.33***</td>
<td>1.58</td>
<td>-1.31 to 4.56</td>
</tr>
<tr>
<td>SAD</td>
<td>24</td>
<td>3.29*</td>
<td>5.24</td>
<td>-4 to 17</td>
</tr>
<tr>
<td>FNE</td>
<td>24</td>
<td>5.46**</td>
<td>8.41</td>
<td>-5 to 24</td>
</tr>
<tr>
<td>Leeds Anxiety</td>
<td>22</td>
<td>2.27*</td>
<td>4.03</td>
<td>-3 to 13</td>
</tr>
<tr>
<td>Leeds Depression</td>
<td>22</td>
<td>1.68*</td>
<td>3.54</td>
<td>-4 to 8</td>
</tr>
</tbody>
</table>

NB. A positive mean change represents a lower level at the end of therapy.
* Paired t-test significant at $p < .05$
** Paired t-test significant at $p < .01$
*** Paired t-test significant at $p < .001$
The therapist (myself) rated the overall therapeutic change in the subject while blind to their questionnaire answers. Change scores were computed for all the scales, by subtracting the retest score from the original score, and the mean changes are shown in Table 3.6 above.

It can be seen that all the scales showed significant reductions during therapy. The largest change was in Concern if Negatively Evaluated by Strangers (Paired t-test comparisons with the other PRQ-3 scales, p < .01).

The change scores, together with the therapist's ratings, were inter-correlated (see Table 3.7). Change in all the PRQ-3 scales correlated with change in SAD at around the .5 level. Change in Likelihood of Negative Evaluation appears to be a better predictor of change in Anxiety scores than is change in Concern if Negatively Evaluated. The change in the Depression scale failed to correlate significantly with the PRQ-3 change scores, although it only just failed to correlate with the Likelihood measures (p = .08 for change in Likelihood of Negative Evaluation by Close Others, p = .06 for change in Likelihood of Negative Evaluation by Strangers).

Table 3.7 Inter-correlations of change scores from test to retest at end of therapy.

<table>
<thead>
<tr>
<th>Changes in PRQ-3 Scales</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likelihood of Negative Evaluation</td>
<td>Concern if Negatively Evaluated</td>
</tr>
<tr>
<td>Change in SAD</td>
<td>.49*</td>
<td>.49*</td>
</tr>
<tr>
<td>Change in FNE</td>
<td>.51**</td>
<td>.76***</td>
</tr>
<tr>
<td>Change in Leeds Anxiety</td>
<td>.50**</td>
<td>.39*</td>
</tr>
<tr>
<td>Change in Leeds Depress.</td>
<td>.32</td>
<td>.09</td>
</tr>
<tr>
<td>Therapist rating of improvement</td>
<td>.38*</td>
<td>.62***</td>
</tr>
</tbody>
</table>

* Pearson's r significant at p < .05, one-tailed test.
** Pearson's r significant at p < .01 one-tailed test.
*** Pearson's r significant at p < .001 one-tailed test.
FNE is closest in concept to the PRQ-3 of the scales used, and change in FNE correlated highly with change in the PRQ-3 scales, particularly with change in the Concern if Negatively Evaluated scales (r=.76 and .69 for close Others and Strangers respectively). The therapist ratings of overall therapeutic change also correlated with the PRQ-3 changes, particularly again with the Concern measures. These inter-correlations give good support for the validity of the PRQ-3. The changes in the PRQ-3 correlated most highly with changes in FNE, SAD and therapist ratings, less highly with changes in Leeds Anxiety, and not quite significantly with changes in Leeds Depression. This is consistent with the PRQ-3’s conceptual similarity to FNE, and the importance of ‘concern with negative evaluation by Others’ in social anxiety. Further factor analysis evidence on the validity of the PRQ is discussed under Hypothesis 6 below.

iv) Tests of the hypotheses.

Hypothesis 1 can be split into three:

1a. High anxiety subjects will attach similar levels of importance to the evaluations by close and distant ‘others’.

1b. Low anxiety subjects will attach greater importance to the evaluations by close than by distant ‘others’.

1c. High and low anxiety subjects will attach similar levels of importance to the evaluations by close ‘others’, but high anxiety subjects will attach greater importance than low anxiety subjects to evaluations by distant ‘others’.

This pattern is predicted for both general and social anxiety.

Table 3.8 compares the PRQ-3 scores for the four types of ‘others’: Family, Friends, Colleagues and Strangers, for three groups of Subjects, Controls, Clinical subjects below the median (of the clinical subjects) on SAD, and Clinical subjects above the median on SAD. The SAD levels of the groups are given, showing that the Low SAD Clinical Subjects are very similar to Controls on SAD, which allows the separate testing of the effects of SAD and clinical status.

The results for Likelihood of Negative Evaluation are shown in Figure 3.1, and for Concern if Negatively Evaluated in Figure 3.2.
Table 3.8  PRO-3 scale scores for those with High Social Anxiety, Low Social Anxiety and Controls

<table>
<thead>
<tr>
<th></th>
<th>Controls (N=39)</th>
<th>Clinical-Low SAD (N=81)</th>
<th>Clinical-High SAD (N=71)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>8.95 (5.65)</td>
<td>8.94 (4.59)</td>
<td>22.64 (3.25)</td>
</tr>
<tr>
<td><strong>PRQ-3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood of negative evaluation by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>1.76 (.76)</td>
<td>1.97 (.87)</td>
<td>2.60 (1.62)*</td>
</tr>
<tr>
<td>Friend</td>
<td>2.44 (.97)</td>
<td>2.43 (.97)</td>
<td>3.05 (1.37)*</td>
</tr>
<tr>
<td>Colleague</td>
<td>2.28 (.91)</td>
<td>2.54 (1.02)</td>
<td>3.40 (1.50)*</td>
</tr>
<tr>
<td>Stranger</td>
<td>2.98 (.99)</td>
<td>2.93 (1.00)</td>
<td>3.97 (1.39)*</td>
</tr>
<tr>
<td>Range</td>
<td>1.22</td>
<td>.96</td>
<td>1.37</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>5.01 (1.81)*</td>
<td>5.63 (1.26)</td>
<td>5.72 (1.37)</td>
</tr>
<tr>
<td>Friend</td>
<td>3.56 (1.68)*</td>
<td>4.47 (1.29)</td>
<td>5.20 (1.34)*</td>
</tr>
<tr>
<td>Colleague</td>
<td>4.64 (1.88)*</td>
<td>5.62 (1.11)</td>
<td>5.95 (1.11)</td>
</tr>
<tr>
<td>Stranger</td>
<td>3.11 (1.54)*</td>
<td>4.12 (1.45)</td>
<td>5.09 (1.64)*</td>
</tr>
<tr>
<td>Range</td>
<td>1.90</td>
<td>1.51</td>
<td>.86</td>
</tr>
</tbody>
</table>

Range = difference between highest and lowest 'other' scores (usually between Family and Strangers).

* One-way ANOVA of the three groups, High SAD significantly greater than the other two groups, Student-Newman-Keuls range test, p<0.05.

† One-way ANOVA of the three groups, Controls significantly lower than the other two groups, Student-Newman-Keuls range test, p<.05.

High SAD subjects did show, as predicted, similar levels of concern if negatively evaluated by close or distant others, in that only .86 of a scale point separated the mean ratings for Family, Friends, Colleagues and Strangers. However, although the level for Strangers was not significantly different to the level for Friends (Correlated t-test, t=.84, df=70), it was different to that for Family (t=4.46, df=70, p<.001), and that for Colleagues (t=7.71, df=70, p<.001). Hence the levels were similar, but not equivalent, as even high SAD subjects tended to give slightly higher ratings for concern if negatively evaluated by close Others. Hypothesis 1a therefore received some, but not complete support.
Figure 3.1

Comparison of Controls, Clinical/Low SAD and Clinical/High SAD on Likelihood of Negative Evaluation (from PRQ-3) by four types of Others.

Likelihood of Negative Evaluation by Others

<table>
<thead>
<tr>
<th>Type of Other</th>
<th>Controls</th>
<th>Low SAD</th>
<th>High SAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colleagues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.2

Comparison of Controls, Clinical/Low SAD and Clinical/High SAD subjects on Concern if Negatively Evaluated by four types of Others.

Concern if Negatively Evaluated by Others

<table>
<thead>
<tr>
<th>Type of Other</th>
<th>Controls</th>
<th>Low SAD</th>
<th>High SAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colleagues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strangers</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Low SAD Clinical subjects differentiated to a greater extent between close and distant Others, with a range of 1.51 scale points, with Concern if Negatively Evaluated by Strangers being significantly lower than Concern if negatively evaluated by all three 'close' groups (Correlated t-tests: Strangers/Family, $t=11.91, df=78, p<.001$; Strangers/Friends, $t=3.12, df=78, p<.003$; Strangers/Colleagues, $t=13.12, df=78, p<.001$).

Controls showed an even greater differentiation between concern about the evaluations by close and distant Others, with a range of 1.90 scale points. Again, Concern if Negatively Evaluated by Strangers was significantly lower than Concern if Negatively Evaluated by the three 'close' groups (Correlated t-tests: Strangers/Family, $t=8.95, df=38, p<.001$; Strangers/Friends, $t=2.13, df=38, p<.04$; Strangers/Colleagues, $t=7.88, df=38, p<.001$). Hypothesis 1b was therefore well supported.

Table 3.9 combines the three 'close' groups for easier comparison between close and distant Others.

Table 3.9 PRQ-3 combined scales for those with High Social Anxiety, Low Social Anxiety and Controls

<table>
<thead>
<tr>
<th></th>
<th>Controls N=39</th>
<th>Clinical-Low SAD N=81</th>
<th>Clinical-High SAD N=71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of negative evaluation by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close Other</td>
<td>2.16 (.77)</td>
<td>2.30 (.81)</td>
<td>3.01 (1.35)*</td>
</tr>
<tr>
<td>Stranger</td>
<td>2.98 (.99)</td>
<td>2.93 (1.00)</td>
<td>3.97 (1.39)*</td>
</tr>
<tr>
<td>Close-Distant</td>
<td>-.82</td>
<td>-.63</td>
<td>-.96</td>
</tr>
<tr>
<td>Concern if negatively evaluated by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close Other</td>
<td>4.40 (1.68)'</td>
<td>5.26 (1.10)</td>
<td>5.63 (1.10)</td>
</tr>
<tr>
<td>Stranger</td>
<td>3.11 (1.54)'</td>
<td>4.12 (1.45)</td>
<td>5.09 (1.64)'</td>
</tr>
<tr>
<td>Close-Distant</td>
<td>1.29</td>
<td>1.14</td>
<td>.54</td>
</tr>
</tbody>
</table>

N.B. All variables have a range of 1-7.

Close-Distant = Score for Close Others minus score for Strangers.

* One way ANOVA of the three groups, High SAD significantly greater than the other two groups, Student-Newman-Keuls range test, $p<0.05$.

' One way ANOVA of the three groups, Controls significantly lower than the other two groups, Student-Newman-Keuls range test, $p<0.05$. 

90
High SAD clinical subjects showed similar (Close minus Distant = .54), but not equivalent levels (Correlated t-test, t=5.32, df=70, p < .001) of Concern if Negatively Evaluated by Close Others and Concern if Negatively Evaluated by Strangers. Low SAD clinical subjects showed a greater differentiation (1.14) between close and distant others (High SAD subjects significantly different to Low SAD on Relative Importance, formed from subtracting Concern if Negatively Evaluated by Strangers from Concern if Negatively Evaluated by Close Others, t=4.1, df=148, p < .001). Controls also showed a greater differentiation (1.29) between close and distant Others than did High SAD (t-test of Relative Importance, t=4.01, df=108, p < .001). The results when 'close' others are combined are shown in Figure 3.3 for Likelihood of Negative Evaluation, and in Figure 3.4 for Concern if Negatively Evaluated.

Figure 3.3
Inspection of Tables 3.8 and 3.9 shows that Likelihood of Negative Evaluation is affected mainly by SAD level rather than clinical status, whereas Concern if Negatively Evaluated is mainly affected by clinical status rather than SAD level.

Hypothesis 1c states that high and low anxiety subjects will attach similar levels of importance to the evaluations by close 'others', but high anxiety subjects will attach greater importance than low anxiety subjects to evaluations by distant 'others'.

This was supported by the high and low SAD groups (see Table 3.9, and Figure 3.4), where the predicted pattern was found. Both high and low SAD groups attached considerable importance to the evaluations by close others, but differed in the importance attached to evaluations by strangers. High SAD subjects attached considerable importance to strangers views also, whereas low SAD subjects attached less importance to strangers views than did high SAD subjects (Oneway ANOVA F=23.69, p<.001, Student-Newman-Keuls range test showed groups significantly different at .05 level).

The predicted pattern was not found when high SAD subjects were compared to Controls, as Controls showed significantly lower levels of concern about the views of close others than the high SAD subjects, (comparisons by Oneway ANOVA, Student-Newman-Keuls range test, p<.05).

For Hypothesis 1c to be true there should also be a significant interaction between subject
group and concern attached to evaluations by the four types of 'other'. This GROUP x OTHERS interaction (where OTHERS were Family, Friends, Colleagues, Strangers, treated as repeated measures) was tested using multivariate analysis of variance. The interaction was highly significant (F=8.16, df=6, p=.001), where GROUP was Controls/Low SAD/High SAD. The interaction was also tested when only two groups of subjects were included in the analysis, to see where the interaction lay. The interaction was significant for High SAD/Low SAD (F=11.06, df=3, p=.001), and for High SAD/Controls (F=11.25, df=3, p=.001), but not for Low SAD/Controls (F=1.23, df=3, p=.30). This provides strong support for Hypothesis 1c.

Hypothesis 1 was also tested using groups defined by their general anxiety levels, as measured by the Leeds Anxiety Scale. This grouping was substantially different to the SAD grouping, only 57% of the high SAD group were in the high Anxiety group. The result are shown in Table 3.10, and Figures 3.5 and 3.6.

High Anxiety subjects showed similar high levels of Concern if Negatively Evaluated by different types of Other (range=.84 scale points), but there were significant differences between the four types of Other:

Concern if Negatively Evaluated by Family, or by Colleague, were significantly higher than Concern if Negatively Evaluated by Friend or Stranger (Paired t-tests, all significant at greater than .001). Low Anxiety clinical subjects showed a similar pattern of differences, although in addition Concern if Negatively Evaluated by Strangers was significantly lower than Concern if Negatively Evaluated by Friends (Paired t-test, t=2.43, df=88, p<.02). Controls significantly differentiated all four types of Other (Paired t-tests, all comparisons significant at .05 level).

Support for Hypothesis 1a, as for the SAD groups above, was therefore only partial. While the high Anxiety subjects did show more similarity of importance attached to close and distant Others, they still made significant distinctions between them.

Hypothesis 1b was well supported, as both Controls and Low Anxiety subjects showed lower levels of Concern if negatively evaluated by Strangers than if negatively evaluated by the three types of close Other.

Multivariate analysis of variance was used to test the GROUP x OTHERS interaction for Concern if Negatively Evaluated, a necessary (but not sufficient) condition for Hypothesis 1c. The interaction was highly significant (F=7.11, df=6, p=.001). This GROUP x OTHERS interaction lay between the High Anxiety group and both the Low Anxiety group or Controls (where GROUP= High Anxiety/Low Anxiety, F=8.86, df=3,
p = .001; where GROUP = High Anxiety/Controls, F = 4.68, df = 3, p = .001). The interaction between Low Anxiety and Controls was not significant (F = 1.95, df = 3, p = .12). The highly significant interaction between level of anxiety, and concern attached to different kinds of 'others', is strongly supportive of Hypothesis 1c.

Table 3.10 PRQ-3 scale scores for those with High Leeds Anxiety, Low Leeds Anxiety and Controls

<table>
<thead>
<tr>
<th>Leeds Anxiety</th>
<th>Controls N=39</th>
<th>Clinical-Low Anxiety N=90</th>
<th>Clinical-High Anxiety N=62</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD)</td>
<td>5.38 (3.63)</td>
<td>7.04 (2.51)</td>
<td>13.54 (1.93)</td>
</tr>
<tr>
<td>Likelihood of negative evaluation by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>1.76 (.76)</td>
<td>2.01 (.98)</td>
<td>2.64 (1.61)*</td>
</tr>
<tr>
<td>Friend</td>
<td>2.44 (.97)</td>
<td>2.50 (1.09)</td>
<td>3.04 (1.32)*</td>
</tr>
<tr>
<td>Colleague</td>
<td>2.28 (.91)</td>
<td>2.55 (1.12)</td>
<td>3.52 (1.42)*</td>
</tr>
<tr>
<td>Stranger</td>
<td>2.98 (.99)</td>
<td>3.02 (1.10)</td>
<td>4.02 (1.37)*</td>
</tr>
<tr>
<td>Range</td>
<td>1.22</td>
<td>1.01</td>
<td>1.38</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>5.01 (1.81)*</td>
<td>5.62 (1.30)</td>
<td>5.76 (1.34)</td>
</tr>
<tr>
<td>Friend</td>
<td>3.56 (1.68)*</td>
<td>4.48 (1.34)</td>
<td>5.28 (1.25)*</td>
</tr>
<tr>
<td>Colleague</td>
<td>4.64 (1.88)*</td>
<td>5.67 (1.09)</td>
<td>5.94 (1.15)</td>
</tr>
<tr>
<td>Stranger</td>
<td>3.11 (1.54)*</td>
<td>4.22 (1.49)</td>
<td>5.10 (1.42)*</td>
</tr>
<tr>
<td>Range</td>
<td>1.90</td>
<td>1.45</td>
<td>.84</td>
</tr>
</tbody>
</table>

Range = difference between highest and lowest 'other' scores (usually between Family and Strangers).

* One way ANOVA of the three groups, High Anxiety significantly greater than the other two groups, Student-Newman-Keuls range test, p < 0.05.

* One way ANOVA of the three groups, Controls significantly lower than the other two groups, Student-Newman-Keuls range test, p < .05.
Figure 3.5

Comparison of Controls, Clinical/Low Anxiety and Clinical/High Anxiety Ss on Likelihood of Negative Evaluation (from PRQ-3) by four types of Others.

Likelihood of Negative Evaluation by Others

<table>
<thead>
<tr>
<th>Type of Other</th>
<th>Family</th>
<th>Friends</th>
<th>Colleagues</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical/High Anx</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical/Low Anx</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.6

Comparison of Controls, Clinical/Low Anxiety and Clinical/High Anxiety subjects on Concern if Negatively Evaluated by four types of Others.

Concern if Negatively Evaluated by Others

<table>
<thead>
<tr>
<th>Type of Other</th>
<th>Family</th>
<th>Friends</th>
<th>Colleagues</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical/High Anx</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical/Low Anx</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 1c also requires that high and low anxiety subjects attach similar levels of importance to the evaluations by close 'others', but high anxiety subjects will attach greater importance than low anxiety subjects to evaluations by distant 'others'. Table 3.11 combines the three types of close Other into one group to facilitate comparison between close and distant Others. The results for Likelihood of Negative Evaluation are shown in Figure 3.7, and for Concern if Negatively Evaluated in Figure 3.8.

Table 3.11  PRO-3 combined scales for those with High Anxiety, Low Anxiety and Controls

<table>
<thead>
<tr>
<th></th>
<th>Controls N=39</th>
<th>Clinical-Low Anxiety N=89</th>
<th>Clinical-High Anxiety N=61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of negative evaluation by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close Other</td>
<td>2.16 (.77)</td>
<td>2.35 (.96)</td>
<td>3.05 (1.27)*</td>
</tr>
<tr>
<td>Stranger</td>
<td>2.98 (.99)</td>
<td>3.02 (1.10)</td>
<td></td>
</tr>
<tr>
<td>Close-Distant</td>
<td>-.82</td>
<td>-.67</td>
<td>-.97</td>
</tr>
<tr>
<td>Concern if negatively evaluated by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close Other</td>
<td>4.40 (1.68)*</td>
<td>5.27 (1.09)</td>
<td>5.67 (1.12)</td>
</tr>
<tr>
<td>Stranger</td>
<td>3.11 (1.54)*</td>
<td>4.22 (1.49)</td>
<td>5.10 (1.42)*</td>
</tr>
<tr>
<td>Close-Distant</td>
<td>1.29</td>
<td>1.05</td>
<td>.57</td>
</tr>
</tbody>
</table>

N.B. Close-Distant = Score for Close Others minus score for Strangers.
* One way ANOVA of the three groups, High Anxiety significantly greater than the other two groups, Student-Newman-Keuls range test, p<0.05.
' One way ANOVA of the three groups, Controls significantly lower than the other two groups, Student-Newman-Keuls range test, p<.05.

The high and low Leeds Anxiety groups showed the predicted pattern. Both high and low Anxiety groups attached considerable importance to the evaluations by close others (mean ratings of 5.67 and 5.27 respectively, on a 1-7 scale), and were not significantly different, but they did differ in the importance attached to evaluations by strangers (mean ratings of 5.10 and 4.22 respectively). High Leeds Anxiety subjects attached considerable importance to strangers views also, whereas low Leeds Anxiety subjects attached less importance to strangers views than did high anxiety subjects (One way ANOVA F=21.56, p<.001, Student-Newman-Keuls range test showed groups significantly different at .05 level). This supports Hypothesis 1c.
Figure 3.7

Comparison of Controls, Clinical/Low Anxiety and Clinical/High Anxiety Ss on Likelihood of Negative Evaluation by close and distant Others (PRO-3 scales).

Likelihood of Negative Evaluation by Others

<table>
<thead>
<tr>
<th>Type of Other</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical/High Anx.</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Clinical/Low Anx.</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Controls</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Figure 3.8

Comparison of Controls, Clinical/Low Anxiety and Clinical/High Anxiety Ss on Concern if Negatively Evaluated by close and distant Others (PRO-3 scales).

Concern if Negatively Evaluated by Others

<table>
<thead>
<tr>
<th>Type of Other</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical/High Anx.</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Clinical/Low Anx.</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Controls</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
The predicted pattern was not found when high Anxiety subjects were compared to Controls, as Controls showed significantly lower levels of concern about the views of close others than the high Leeds Anxiety subjects, (comparisons by One-way ANOVA, Student-Newman-Keuls range test, p<.05). This is a similar result to that found for social anxiety described above.

Table 3.11, where the data for the three 'close' groups is combined, further demonstrates the support for Hypothesis 1a. It can be seen that the difference between Concern if Negatively Evaluated by Close Others and Concern if Negatively Evaluated by Strangers was .57 scale points for High Anxiety clinical subjects, 1.05 for Low Anxiety clinical subjects, and 1.29 for Controls. High Anxiety subjects therefore showed relatively similar, but not equivalent levels of concern for evaluations by close and distant Others (levels were significantly different, correlated t-test, t=5.15, df=60, p<.001).

Low Anxiety clinical subjects and Controls showed greater differentiation of close and distant Others than did High Anxiety subjects (Low Anxiety subjects significantly different to High Anxiety subjects on Relative Importance, t=3.10, df=148, p<.002; Controls significantly different to High Anxiety subjects on Relative Importance, t=3.62, df=98, p<.001). This tendency for low anxiety subjects and controls to attach less importance to evaluations by distant others, compared to close others, supports Hypothesis 1b.

Hypothesis 2. High anxiety subjects will tend to give greater likelihood of negative evaluation for all groups of 'others', compared to low anxiety subjects. Again, this is predicted for both general anxiety and social anxiety. This is a replication of the second hypothesis from Study 2.

It can be seen in Table 3.8 above that High SAD subjects were significantly higher than Low SAD and Controls on Likelihood of Negative Evaluation by all four types of Others: Family, Friends, Colleagues and Strangers (One-way ANOVA, Student-Newman-Keuls range test, p<.05). High Leeds Anxiety subjects showed the same pattern (see Table 3.10). Hypothesis 2 was therefore fully supported.

Hypothesis 3. Likelihood of negative evaluation will be greater for medium social distance 'others' (i.e. Friends and Colleagues), compared to close (Family) or distant (Strangers) ‘others’.

This hypothesis was not supported. The median scores (on a 1 to 7 scale) for all Subjects were:

- Likelihood of Negative Evaluation by Family: 1.8
- Likelihood of Negative Evaluation by Friends: 2.4
- Likelihood of Negative Evaluation by Colleagues: 2.7
- Likelihood of Negative Evaluation by Strangers: 3.3
Main Amendments made to Ph.D. Thesis of M. Pitch

<table>
<thead>
<tr>
<th>Page No.</th>
<th>Summary of changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>Scoring of PRQ-1 explained.</td>
</tr>
<tr>
<td>42</td>
<td>Suffixes included in table to show significant differences</td>
</tr>
<tr>
<td>44</td>
<td>Section 5, df changed to 41.</td>
</tr>
<tr>
<td>45</td>
<td>More cautious wording of Hypothesis 2.</td>
</tr>
<tr>
<td>47</td>
<td>Hypothesis 1 reworded for clarity.</td>
</tr>
<tr>
<td>48</td>
<td>Scoring of PRQ-2 explained.</td>
</tr>
<tr>
<td>54</td>
<td>Footnote to table giving range of variables to facilitate interpretation.</td>
</tr>
<tr>
<td>55-61</td>
<td>MANOVA interaction tests included.</td>
</tr>
<tr>
<td>64-65</td>
<td>Discussion of Hypothesis 1 includes results of interaction tests.</td>
</tr>
<tr>
<td>66-67</td>
<td>Interaction results included and discussion of Butler &amp; Mathews study.</td>
</tr>
<tr>
<td>74-75</td>
<td>More detail in Procedure section a) on DSM-III-R use.</td>
</tr>
<tr>
<td>77-78</td>
<td>Scoring of PRQ-3 further explained.</td>
</tr>
<tr>
<td>92-93</td>
<td>Interaction tests added to Hypothesis 1.</td>
</tr>
<tr>
<td>99</td>
<td>4a includes comparison of sizes of correlations.</td>
</tr>
<tr>
<td>100</td>
<td>4d includes comparison of sizes of correlations.</td>
</tr>
<tr>
<td>112 on</td>
<td>Discussion includes results of interaction tests.</td>
</tr>
<tr>
<td>113</td>
<td>Graph added to support Hypothesis 1.</td>
</tr>
<tr>
<td>114</td>
<td>Discussion of correlations includes comparisons of sizes of correlations.</td>
</tr>
<tr>
<td>119 (bottom)</td>
<td>Caution about specificity of effects.</td>
</tr>
<tr>
<td>156</td>
<td>Final Summary and Discussion extensively revised.</td>
</tr>
</tbody>
</table>
However, these 'Likelihood of Negative Evaluation by Others' scales derive from ratings of the likelihood of different possible negative 'thoughts', in different situations, for the four groups of Others. The severity, in terms of social failure, of the situations probably differs, as does the severity of the possible thoughts. To see if comparison across situations was meaningful, the levels of Likelihood of Negative Evaluation by Strangers were compared, as this rating was done for all situations. The median ratings varied from 2 to 3.6, and were significantly different (Friedman test, Chi-square=149.6, df=5, p < .0001), suggesting the situations do differ in terms of severity and comparisons should not made between them.

Hypothesis 4. Predicted Intercorrelations of scales.

Hypothesis 4 predicts:

4a. FNE will correlate with both likelihood and importance of negative evaluation, the correlation with importance being higher.

It can be seen from Table 3.12 that the relative magnitudes of the correlations was as predicted, FNE correlated at .41 and .45 with the likelihood of negative evaluation scales (Close Others and Strangers respectively), and at .53 and .65 with the importance attached to negative evaluation. The size of the correlations was compared using the method described in Mode (1961), based on Fisher's z-transformation of the correlations. The correlation of FNE with Concern if Negatively Evaluated by Strangers was significantly higher than the correlation of FNE with Likelihood of Negative Evaluation by Strangers (N=187, r_1=.65, r_2=.45, z'=2.78, p =.003, 1-tailed), but for Close Others the correlations just failed to differ significantly (N=187, r_1=.53, r_2=.41, z' =1.44, p =.075, 1-tailed). As the correlations did significantly differ for the Stranger measures then Hypothesis 4a seems well supported. The correlation of .65 between FNE and Concern if Negatively Evaluated by Strangers shows these two variables shared 42% of their variance.

4b. SAD will only correlate with Likelihood of negative evaluation.

This hypothesis was not supported. SAD correlated with both likelihood of negative evaluation (.33 for Close Others and .39 for Strangers) and importance attached to it (.22 and .37).

4c. Leeds Anxiety will correlate with both likelihood and importance of negative evaluation.

This was supported. For Likelihood of Negative Evaluation, Leeds Anxiety correlated .39 for Close Others and .47 for Strangers, and for Concern if Negatively Evaluated, .31 for Close Others and .39 for Strangers.
### Table 3.12 Correlations between the PRQ-3 and other questionnaires.

<table>
<thead>
<tr>
<th>PRQ-3 Scales</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likelihood of Negative Evaluation</td>
<td>Concern if Negatively Evaluated</td>
</tr>
<tr>
<td>SAD (N=187)</td>
<td>.33</td>
<td>.22</td>
</tr>
<tr>
<td>FNE (N=187)</td>
<td>.41</td>
<td>.53</td>
</tr>
<tr>
<td>Leeds Anxiety (N=187)</td>
<td>.39</td>
<td>.31</td>
</tr>
<tr>
<td>Leeds Depression (N=187)</td>
<td>.38</td>
<td>.20</td>
</tr>
<tr>
<td>DEQ-Dependency (N=141)</td>
<td>.40</td>
<td>.54</td>
</tr>
<tr>
<td>DEQ-Self Criticism (N=141)</td>
<td>.49</td>
<td>.34</td>
</tr>
<tr>
<td>IBT-Demand for Approval (N=157)</td>
<td>.44</td>
<td>.42</td>
</tr>
<tr>
<td>IBT-Total (N=132)</td>
<td>.50</td>
<td>.46</td>
</tr>
</tbody>
</table>

NB. Pearson’s r used, all significant at p<.001, except *p*, p<.003.

4d. Leeds Depression will only correlate with likelihood of negative evaluation. This was not supported, as Depression correlated with all PRQ-3 scales, although the correlations were higher for likelihood (.38 for Close Others and .37 for Strangers) than importance of negative evaluation (.20 for Close Others and .29 for Strangers). For Close Others the Depression/Likelihood correlations was significantly higher ($r_l = .38$, $r_l = .20$, $z^* = 1.92$, $p = .03$) than the Depression/Importance correlation.

4e. The Depressive Experiences Questionnaire factor Dependency will correlate highly with importance of negative evaluation, for both close and distant Others. The Self-Criticism factor will correlate highly with likelihood of negative evaluation, for both close and distant Others.

This hypothesis was supported, in that Dependency correlated quite highly with the importance of negative evaluation (.54 and .59 for close Others and Strangers respectively), and Self Criticism correlated quite highly with the likelihood of negative evaluation (.49 and .45 for close Others and Strangers respectively). However,
Dependency also correlated with likelihood of negative evaluation (.40 and .43), and Self Criticism also correlated with importance of negative evaluation (.34 and .31). When the sizes of the correlations were compared (Mode, 1961), Dependency did correlate significantly higher with Concern if Negatively Evaluated by Strangers than with Likelihood of Negative Evaluation by Strangers (N=141, r₁ = .59, r₂ = .43, z' = 1.81, p = .035, 1-tailed), but the other comparisons were not significant (for Dependency and the two measures involving close others, p = .067, for Self-Criticism and the two measures involving strangers, p = .087, for Self-Criticism and the two measures involving close others, p = .065). Hence although the hypothesis was broadly supported, Dependency/Self-Criticism did not map onto Concern about Negative Evaluation/Likelihood of Negative Evaluation as cleanly as might have been hoped.

4f. The Irrational Beliefs Test scale Demand for Approval will correlate highly with importance of negative evaluation. This was partly supported, as Demand for Approval correlated quite highly (.52) with Concern if Negatively Evaluated by Strangers, but the moderate correlation of .42 with Concern if Negatively Evaluated by Close Others was similar to its correlation with the two likelihood of negative evaluation measures (.44 and .41).

Further intercorrelations of interest are those between the two dimensions of the PRQ-3, Concern with and Likelihood of negative evaluation. For all subjects these correlated at .36 for negative evaluation by close Others, and .49 for negative evaluation by Strangers. Similar correlations were obtained when Controls, low anxiety and high anxiety subjects were analysed separately. This was done because in Study 1 there was a suggestion that high anxiety subjects only had a significant correlation of the two dimensions. The present results, based on a much larger sample (196 rather than 42), suggest that the earlier finding was spurious.

Hypothesis 5.

In the factor analysis of the results, general anxiety and FNE will load on an Importance factor, SAD will load on a likelihood of negative evaluation factor, and Depression on a different factor. This is based on the results found in Study 2. Principal Components analysis of SAD, FNE, Leeds Anxiety and Depression, the PRQ-3 scales, DEQ Dependency and Self Criticism, and IBT-Demand for Approval produced three factors with eigenvalues greater than 1, that accounted for 72.5% of the variance. There was a large main factor, accounting for 51.3% of the variance, which all the scales loaded on at least .6, which seemed to be a general psychopathology factor. The next two factors accounted for 11.6% and 9.6% of the variance.
The factor loadings, after varimax rotation of the three factors extracted, are shown in Table 3.13.

### Table 3.13: Factor loadings of PRQ-3 and other questionnaires after principal components analysis and varimax rotation.

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAD</td>
<td>.27</td>
<td>.69</td>
<td>.06</td>
</tr>
<tr>
<td>FNE</td>
<td>.69</td>
<td>.55</td>
<td>.10</td>
</tr>
<tr>
<td>Leeds Anxiety</td>
<td>.20</td>
<td>.75</td>
<td>.25</td>
</tr>
<tr>
<td>Leeds Depression</td>
<td>.04</td>
<td>.82</td>
<td>.21</td>
</tr>
<tr>
<td>DEQ- Dependency</td>
<td>.64</td>
<td>.47</td>
<td>.13</td>
</tr>
<tr>
<td>DEQ- Self Criticism</td>
<td>.21</td>
<td>.62</td>
<td>.37</td>
</tr>
<tr>
<td>IBT- Demand for Approval</td>
<td>.61</td>
<td>.49</td>
<td>.15</td>
</tr>
<tr>
<td>Likelihood of Negative Evaluation by Close Others</td>
<td>.22</td>
<td>.25</td>
<td>.89</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by Close Others</td>
<td>.85</td>
<td>.01</td>
<td>.25</td>
</tr>
<tr>
<td>Likelihood of Negative Evaluation by Strangers</td>
<td>.28</td>
<td>.26</td>
<td>.87</td>
</tr>
<tr>
<td>Concern if Negatively Evaluated by Strangers</td>
<td>.86</td>
<td>.14</td>
<td>.26</td>
</tr>
</tbody>
</table>

The general psychopathology factor has become Factor 2. Factor 1 can be labelled "Concern about Negative Evaluation", as it loads the two Concern scales from the PRQ-3, FNE, DEQ- Dependency and IBT- Demand for Approval. Factor 3 represents "Likelihood of Negative Evaluation by Others", loading the two Likelihood scales from the PRQ-3 and DEQ- Self Criticism. Hypothesis 5 received little support. There were two factors representing the main dimensions of the PRQ-3, likelihood of negative evaluation and concern about negative evaluation, and FNE loaded as predicted on the concern/importance factor.
However, Anxiety failed to load on the importance factor, and SAD failed to load on the likelihood of negative evaluation factor. In fact SAD loaded fairly highly (.27) on the importance factor, and Anxiety fairly highly (.25) on the likelihood factor. Depression did load on a separate factor to importance of negative evaluation or to likelihood of negative evaluation as predicted.

A further factor analysis was carried out incorporating the derived variable Relative Importance, formed by subtracting Concern if Negatively Evaluated by Strangers from Concern if Negatively Evaluated by Close Others. Hypothesis 1 states that high anxiety should be associated with a low Relative Importance i.e. high anxiety subjects fail to differentiate between close and distant Others, and attach great importance to evaluations by both. Low anxiety subjects attach more importance to close than distant Others’ evaluations, and should have a high Relative Importance.

Relative Importance, SAD, FNE, Leeds Anxiety and Depression, DEQ-Dependency, DEQ-Self Criticism and IBT-Demand for Approval were subjected to principal-components analysis, resulting in two factors accounting for 65.6% of the variance. The resulting factor loadings, after varimax rotation, are shown in Table 3.14.

Table 3.14 Factor loadings of Relative Importance (from PRO-3) and other questionnaires after principal components analysis and varimax rotation.

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAD</td>
<td>.53</td>
<td>.58</td>
</tr>
<tr>
<td>FNE</td>
<td>.70</td>
<td>.51</td>
</tr>
<tr>
<td>Leeds Anxiety</td>
<td>.75</td>
<td>.19</td>
</tr>
<tr>
<td>Leeds Depression</td>
<td>.73</td>
<td>.20</td>
</tr>
<tr>
<td>DEQ- Dependency</td>
<td>.67</td>
<td>.33</td>
</tr>
<tr>
<td>DEQ- Self Criticism</td>
<td>.84</td>
<td>-.14</td>
</tr>
<tr>
<td>IBT- Demand for Approval</td>
<td>.72</td>
<td>.31</td>
</tr>
<tr>
<td>Relative Importance</td>
<td>-.03</td>
<td>-.91</td>
</tr>
</tbody>
</table>

The first factor, accounting for 52.7% of the variance, loaded all the scales highly (above .53) except Relative Importance, and was a general measure of psychopathology. The second factor, accounting for 12.9% of the variance, loaded Relative Importance (-.91),
SAD (.58), FNE (.51), DEQ-Dependency (.33), and IBT-Demand for Approval (.31). Thus although SAD failed to load on the Importance of Negative Evaluation or the Likelihood of Negative Evaluation factors, it did load on the Relative Importance factor. This supports Hypothesis 1, and in particular suggests that social anxiety, but not general anxiety, is linked to the relative levels of importance of negative evaluation, rather than the absolute levels i.e. it is the difference (actually the lack of it) between importance attached to evaluations by Close Others and by Strangers that is crucial for social anxiety.

Hypothesis 6. The PRQ-3 will demonstrate adequate reliability and validity. Data on the reliability and validity have been presented in earlier sections. Further evidence for the validity of the PRQ-3 comes from factor analyses of the data. To test the construct validity of the PRQ-3 the first level scales were subjected to principal components analysis with varimax rotation. Three factors had eigenvalues greater than 1, the first accounting for 44.8% of the variance, the second for 16.4% and the third for 4.8% of the variance. All the scales loaded above .49 on the first factor (before rotation), reflecting the fact that all the first level scales correlated quite highly together. The second factor (before rotation) was bipolar, Concern versus Likelihood, as all the Concern if Negatively Evaluated scales loaded between -.25 and -.50, and all the Likelihood of Negative Evaluation scales loaded between .29 and .55.

After rotation the first factor became Concern if Negatively Evaluated, with all the Concern scales loading above .63, and the second factor became Likelihood of Negative Evaluation, with all the Likelihood scales loading above .49. The third factor was small and difficult to interpret. The factor analysis of the PRQ-3 first level scales therefore gives strong support to the construct validity of the PRQ-3, and the existence of two separate dimensions, Concern and Likelihood.

Factor analyses were also carried out using the second-level scales of the PRQ-3, where there are separate scales for likelihood of negative evaluation, and for concern about negative evaluation, for Family, Friends, Colleagues and Strangers. All the second-level 'likelihood' scales loaded highly (at levels above .83) on the 'likelihood' factor, and the second level 'concern' scales all loaded highly (at levels above .82) on the 'concern' factor. This demonstrates the internal consistency and construct validity of the scales. Further evidence of the construct validity of the PRQ-3 comes from the first Factor Analysis reported under Hypothesis 5 above, where the factor loading the Concern about negative evaluation scales from the PRQ-3 also loaded highly FNE, DEQ-Dependency and IBT-Demand for Approval. These latter three questionnaires all measure concepts that were expected to be related to Concern about negative evaluation (see Hypothesis 4). The
factor loading the Likelihood of negative evaluation scales also loaded the DEQ-Self Criticism scale (to which it was expected to be related—Hypothesis 4). These loadings support the construct validity of the questionnaire.

Hypothesis 7.

This predicted the likely relationships between the diagnostic groups and the PRQ-3 scales (see Table 3.1). The observed levels (Mean, SD, Median) are shown in Table 3.15.

Table 3.15 PRQ-3 scale scores for all diagnostic categories.

<table>
<thead>
<tr>
<th></th>
<th>'Others'</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family/Friends/Colleagues</td>
<td>Strangers</td>
<td></td>
</tr>
<tr>
<td>Likelihood of negative evaluation</td>
<td>Concern if negatively evaluated</td>
<td>Likelihood of negative evaluation</td>
<td>Concern if negatively evaluated</td>
</tr>
<tr>
<td>Controls (Mean, SD; Median)</td>
<td>2.1 (0.8) 4.4 (1.7) 4.7</td>
<td>3.0 (1.0) 3.0</td>
<td>3.1 (1.5) 2.9</td>
</tr>
<tr>
<td>Adj Dis /Dep</td>
<td>2.7 (0.9) 5.0 (1.1) 4.7</td>
<td>3.3 (1.2) 3.2</td>
<td>4.1 (1.5) 4.1</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>2.8 (1.5) 5.6 (1.3) 5.9</td>
<td>3.4 (1.6) 3.3</td>
<td>5.0 (1.3) 4.6</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>2.8 (1.0) 5.6 (1.0) 5.6</td>
<td>4.2 (1.5) 4.5</td>
<td>5.0 (1.5) 5.3</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>2.7 (1.5) 5.3 (1.5) 5.7</td>
<td>3.3 (1.4) 3.2</td>
<td>4.6 (1.7) 5.1</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>2.7 (1.1) 5.5 (1.2) 5.8</td>
<td>3.6 (1.3) 3.5</td>
<td>4.8 (1.6) 5.4</td>
</tr>
<tr>
<td>Gen Anx Disorder</td>
<td>2.2 (0.7) 5.3 (1.2) 5.5</td>
<td>3.1 (1.1) 3.2</td>
<td>4.5 (1.5) 4.4</td>
</tr>
<tr>
<td>Adj Dis /Anxiety</td>
<td>2.9 (1.4) 5.9 (0.7) 6.0</td>
<td>3.5 (1.4) 3.6</td>
<td>5.1 (1.2) 5.2</td>
</tr>
<tr>
<td>Spider Phobia</td>
<td>2.4 (0.9) 5.1 (0.9) 5.4</td>
<td>3.1 (1.1) 2.9</td>
<td>3.7 (1.5) 3.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2.5 (1.1) 5.2 (1.2) 5.3</td>
<td>3.3 (1.3) 3.4</td>
<td>4.3 (1.6)</td>
</tr>
</tbody>
</table>

* Significantly different to Controls, p = .05, One-way ANOVA, SNK range test.
The medians (as this was more representative of the group than the mean) were classified into low, medium or high based on where the median fell in the percentile range, below the 33rd percentile being 'low', 33rd to 66th being 'medium', and above the 66th percentile being 'high'. The hypothesis was tested according to how many cells were as predicted. The predicted and observed classifications are shown in Table 3.16.

Table 3.16 PRQ-3 predictions and observed levels for all diagnostic categories.

<table>
<thead>
<tr>
<th></th>
<th>'Others'</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family/Friends/Colleagues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Likelihood of</td>
<td>Likelihood of</td>
</tr>
<tr>
<td></td>
<td>negative</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td>evaluation</td>
<td>evaluation</td>
</tr>
<tr>
<td></td>
<td>Concern if</td>
<td>Concern if</td>
</tr>
<tr>
<td></td>
<td>negatively evaluated</td>
<td>negatively evaluated</td>
</tr>
<tr>
<td>Controls P</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>low</td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>medium</td>
</tr>
<tr>
<td>Adj Dis /Dep P</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>medium</td>
</tr>
<tr>
<td>Dysthymia P</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Agoraphobia P</td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td>Social Phobia P</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td>Panic Disorder P</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Gen Anx Disorder O</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Adj Dis /Anxiety O</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Spider Phobia P</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>Agreement</td>
<td>4/9 44%</td>
<td>5/9 56%</td>
</tr>
<tr>
<td></td>
<td>5/9 56%</td>
<td>7/9 78%</td>
</tr>
</tbody>
</table>

Although the overall success in predicting PRQ-3 levels was not very high (21 out of 36,
58%), no cell was more than one gradation different to that predicted. The most accurate predictions were made for Concern if Negatively Evaluated by Strangers (78%), and this is the scale that has produced the most associations with anxiety disorders in the present research, a point reinforced by the high scores on this scale of the diagnostic groups Agoraphobia, Social Phobia, Panic Disorder and Adjustment Disorder with Anxious Mood.

The most accurate predictions were made for Generalised Anxiety Disorder (100% correct), Agoraphobia, Panic Disorder and Adjustment Disorder with Depressed Mood, (75%). The worst predictions were for the Specific Phobics and Social Phobics (25%). The highest scoring diagnostic groups were Agoraphobia (with 3 high and 1 medium) and Adjustment Disorder with Anxious Mood (2 high and 2 medium), followed by Panic Disorder and Social Phobia (1 high and 3 medium). The lowest scoring group was Controls (2 low and 2 medium), followed by Spider Phobics and Adjustment Disorder with Depressed Mood (2 low and 2 medium).

Regression Analyses.
To further explore the relationships between the PRQ-3 scales and the other questionnaires Multiple Regression Analysis was performed to see which PRQ-3 scales predicted the three questionnaire measures of psychopathology: SAD, Leeds Anxiety and Depression. The best prediction of SAD was a combination of Likelihood of Negative Evaluation by Strangers (Beta = .33) and Relative Importance (Beta = .24), which together accounted for 20% of the variance in SAD.

The best prediction of Leeds Anxiety was a combination of Likelihood of Negative Evaluation by Strangers (Beta = .37) and Concern if Negatively Evaluated by Strangers (Beta = .21), which together accounted for 26% of the variance in Leeds Anxiety.

The best prediction of Leeds Depression was a combination of Likelihood of Negative Evaluation by Close Others (Beta = .32) and Concern if Negatively Evaluated by Strangers (Beta = .15), which together accounted for 17% of the variance in Leeds Depression.

DISCUSSION
The main purpose of Study 3 was to develop a refined version of the Personal Reactions Questionnaire, to assess the two cognitive domains of a). Likelihood of Negative Evaluation by close Others and Strangers, and b). Concern if Negatively Evaluated by close Others and Strangers, and to demonstrate its reliability and validity,. The scores on the resulting scales were related to diagnosis of the subject, and to a number of related scales, and seven hypotheses were tested. The key areas of interest were the links between
anxiety, depression, the perceived likelihood of negative evaluation by others, and the relative importance attached to negative evaluations by different groups of others.

In total 196 subjects completed the battery of questionnaires. Most (135) were GP referred out-patients attending a Clinical Psychology Department, the 40 Controls were partners or friends of the patients, which helped to give the Controls the same social class mix as the clinical group (approximately 50:30:20 for Social Classes 1&2, 3, 4&5). The 21 Spider Phobics were recruited from a subject panel at an M.R.C. Applied Psychology Unit, and this group had a predominance of social classes 1 and 2.

Two diagnostic categories, Agoraphobia and Social Phobia, were noticeable for their predominance of social classes 4 and 5. The uneven distribution of social class probably had little effect on the results as social class did not affect any of the PRQ-3 scales, FNE or Depression. Social class was related to SAD (Social Class 4 being higher than Social Class 1), and to Leeds Anxiety (Social Class 5 was higher than Social Class 1), but these correlations may be an artifact due to Agoraphobics and Social Phobics having the highest Anxiety and SAD scores respectively, as well as a predominance of social classes 4 and 5.

The scores of the diagnostic groups on the psychopathology-related questionnaires (i.e. SAD, FNE, Leeds Anxiety and Depression, DEQ-Dependency, Self-Criticism and Efficacy) were consistent with their diagnoses (with the exception of Efficacy), which attests to the validity of these scales. DEQ-Efficacy was the exception, as although Controls scored most highly on this scale, the difference was not significant due to the large variability within each group.

The Spider Phobics were similar to Controls on all of these measures (DEQ was not administered to the Spider Phobics), so they form a second 'control' group. The similarity of these two groups suggests that the biased social class mix of the spider phobics does not affect the cognitive areas involved in this study.

Hypothesis 6, that the PRQ-3 would have adequate reliability and validity, will be discussed first as, unless this is supported, hypothesis testing with the PRQ-3 would not be appropriate.

The internal consistency of the PRQ-3 was high, all scales having high Cronbach Alpha's, although these may have been exaggerated by an observed tendency to give the same rating to a block of six questions. To counteract this there would have to be reversal of some items, and this would have over-complicated the questionnaire, and probably necessitated a completely different format.

The test-retest data showed that appreciable change occurred over a period of about three weeks. Ideally the retest interval should have been shorter, it would have been preferable
to give the second batch of questionnaires with return envelopes, and specific instructions when to return them, rather than bringing them to the next appointment. The two scales measuring likelihood of negative evaluation were reasonably stable (r's of .70 and .78), but the Concern if Negatively Evaluated scales were less stable (r's of .53 and .55). Analysis of the stability of second level scales (which were summed to give the final scales) showed the same pattern of stability. It can reasonably be argued that the lack of stability of some scales reflects genuine cognitive changes rather than unreliability of the questionnaire: the internal consistency measures showed no differences between the different scales, which would have been expected if some scales were less reliable than others. Also the changes in the 'Concern about Negative Evaluation' measures were in the therapeutic direction, and correlated with change in FNE (r's of .57 and .60), suggesting they were genuine changes.

Overall the reliability data suggest that the PRQ is a fairly reliable measure, but that the scales measuring concern about negative evaluation are not particularly stable. The validity of the PRQ-3 was tested in a number of ways. Construct validity was tested by correlating subscales of the PRQ-3 that independently measured the same construct. There were three scales measuring Likelihood of Negative Evaluation by Strangers, based on different hypothetical situations, and these intercorrelated fairly highly (.70, .75 and .77). Similarly, there were three scales measuring Concern if Negatively Evaluated by Strangers, and these also intercorrelated fairly highly (.70, .81, and .81). These correlations suggest that about half the variance of the scales is shared.

There was also internal replication of scales due to each type of close Other observing two different situations. This gave two measures of Likelihood and Concern for each type of observer that could be correlated. The correlations ranged from .53 to .69, showing the scales shared around 35% of their variance across the two situations. Although the internal replication measures of construct validity suggest that only around 35% to 50% of the variance in the scales is probably attributable to the construct, this seems a reasonable level for this type of scale, as considerable situational specificity would be expected (Mischel, 1968).

The factor analysis provided further evidence of construct validity. The 'Close Other' scales were aggregated from the second level measures for Family, Friend and Colleagues, this aggregation was validated by factor analysis, where the Family, Friend and Colleague subscales loading on the same factor at levels between .81 and .92. The factor loadings of the other questionnaires used provides strong support for the
validity of the PRQ-3. Concern if Negatively Evaluated by Close Others and Concern if Negatively Evaluated by Strangers defined one factor (with loadings of .85 and .86), and the questionnaires that measure related constructs all loaded this factor (FNE at .69, DEQ-Dependency at .64, and IBT-Demand for Approval at .61). Similarly, Likelihood of Negative Evaluation by Close Others and Likelihood of Negative Evaluation by Strangers defined another factor (with loadings of .89 and .87), and this factor also loaded DEQ-Self Criticism (at .37), this being the only questionnaire scale that is specifically to do with the likelihood of negative evaluation, albeit from the self rather than from others as in the PRQ-3.

The final test of the validity of the PRQ-3 came from retesting 24 subjects at the end of cognitive behaviour therapy, to see if changes in the PRQ-3 corresponded with changes in: the FNE scale, the clinical scales (SAD, Leeds Anxiety and Depression) and the therapists rating of overall clinical change.

Change in FNE correlated fairly highly with change in the PRQ-3 scales, particularly with change in the Concern if Negatively Evaluated scales (.76 for close Others, .69 for Strangers), supporting the validity of these scales. It also correlated with changes in the Likelihood of Negative Evaluation scales (.51 for close Others, .60 for Strangers).

Change in SAD correlated around .5 with change in the four PRQ-3 scales. Change in Leeds Anxiety correlated more with change in the Likelihood scales (.50 and .56) than it did with change in the Concern scales (.39 and .35), although not significantly more, as the low N of 21 meant a very large difference in correlations was necessary to achieve significance.

The pattern of correlations in the change scores is similar to the correlations between the questionnaires found in Study 2, where FNE correlated most with the importance of Others’ views, and at a lower level with likelihood of negative evaluation. Also Anxiety correlated mainly with the likelihood measure in Study 2, and correlated at a lower level with importance of Others’ views. This pattern of correlations is tested in Hypothesis 4, to be discussed in detail later.

Change in the Depression scale did not correlate significantly with changes in the PRQ-3, although correlations with change in the likelihood measures both just failed to be significant (p=.08 and p=.06). In Study 2 Depression only correlated with the likelihood scales, although in the factor analysis it failed to load on any PRQ-2 defined factor. In the present study Depression correlated with both likelihood and concern about negative evaluation, the levels for likelihood being higher (significantly so for the Close Others measures), as discussed under Hypothesis 4 below.
The changes in PRQ-3 at retest correlated quite highly with the therapists rating of overall clinical improvement, particularly changes in the Concern scales (.62 with Concern if Negatively Evaluated by Close Others, and .62 with Concern if Negatively Evaluated by Strangers). This finding has clinical implications, suggesting that cognitions about over-concern with evaluations by Others should receive particular attention in cognitive therapy, as change in these cognitions accounted for 38% of the variance in the outcome measure.

A very high correlation was found between change in Concern if Negatively Evaluated by Close Others and change in Concern if Negatively Evaluated by Strangers (.97). This is similar to the correlation of changes found in the reliability test-retest of .94. It seems that these two scales tend to closely co-vary within individuals. In view of the fact that they also closely co-vary between individuals (for all subjects the scales correlate at .79) it could be argued that the distinction between them is not meaningful. However, the difference between the two scales for an individual does show predictable links with anxiety (see Hypothesis 1), and on factor analysis the difference (Relative Importance) defines a factor that has a higher loading of SAD than the factor jointly defined by the two Concern scales.

Overall the post-therapy retest data provides considerable evidence of the construct validity of the PRQ-3 (from the correlations with FNE), and of its criterion validity (from correlations with clinical scales and therapist ratings that should be affected by cognitive changes recorded by the PRQ-3).

Having argued that the PRQ-3 has acceptable reliability and validity, the hypotheses can then be tested.

Hypothesis 1 was split into three parts. Hypothesis 1a, that high anxiety subjects will attach similar levels of importance to the evaluations by close and distant 'others', received mixed support, depending on the interpretation of 'similar'. The results were consistent whether using high anxiety groups defined by their social or general anxiety level: high anxiety subjects showed less differentiation between close and distant Others than did low anxiety/control subjects, but they still showed some differentiation. Hence they showed 'similar', but not equivalent levels of importance for evaluations by close and distant Others.

Hypothesis 1b was well supported, both Controls and Low Anxiety subjects showed less concern if negatively evaluated by Strangers than if negatively evaluated by the remaining three types of Others.

Hypothesis 1c also received mixed support, depending on whether the 'low' anxiety group
used for comparison was low anxiety clinical subjects, or Controls. The hypothesis was very well supported if low anxiety clinical subjects were used for the comparison, both high and low anxiety subjects attached high levels of importance to evaluations made by close others, but high anxiety subjects also attached fairly high levels of importance to evaluations made by distant Others, whereas low anxiety subjects attached significantly lower levels of importance to evaluations by distant Others. This was true for both social and general anxiety defined groups. The GROUP x OTHERS interaction, a necessary condition for Hypothesis 1c, was highly significant (p=.001) for both types of anxiety groups.

However, when Controls were compared to the high anxiety subjects, the hypothesis was not supported, as the Controls attached significantly lower levels of importance to evaluations made by close Others as well as to evaluations made by distant Others. This contrasts with the finding in Study 2, where Controls were equivalent to high anxiety subjects in the importance attached to evaluations by close Others, particularly family (see Figure 2, Study 2). The reasons for the difference are not clear, it could be related to the Controls being recruited in different ways, in Study 2 they were obtained from a group of volunteer subjects at an M.R.C. Applied Psychology Unit, whereas in the present study they were partners or friends of Clinical Psychology out-patients. However, there is no obvious reason why the present Controls should attach less importance to evaluations by close Others than the previous Controls, although it could be argued that many of the present Controls had a ‘psychologically unwell’ person in their close family (i.e. the patient), and had learned to attach less importance to evaluations made by their family because of this. Another factor could have been that the Study 2 subjects were often experienced psychology research subjects, which may have influenced their answers, possibly by making them more psychologically aware. It was noticeable in the pilot interviews done at the start of this research that many subjects had difficulty identifying thoughts about the importance of others’ evaluations, and that this improved with practice. This greater awareness may have led to the Controls in Study 2 giving higher estimates of Concern if Negatively Evaluated.

The finding of a difference between Controls and the two clinical groups on Concern if Negatively Evaluated by Close Others may well be a valid result due to the PRQ-3 having greater discriminating power than the PRQ-2, which was one of the intentions during the development of the PRQ-3.

Despite the fact that high anxiety subjects tended to have higher levels of concern about evaluations by close others than did Controls, the difference between High Anxiety and
Control subjects was more pronounced for concern about evaluations by Strangers, where Control subjects tended to be much lower. This was shown by the highly significant GROUP x OTHERS interaction when comparing these two groups. This gives support to the idea underlying Hypothesis 1c, that there is a differential response between high and low anxiety subjects.

It therefore appears that clinical status, rather than SAD or Anxiety severity, was the main determinant of overall level of Concern if Negatively Evaluated, but SAD/Anxiety severity determined the pattern of Concern, whereby non-clinical subjects and low anxiety subjects differentiate between close and distant others, but high anxiety subjects fail to make this differentiation, or make it to a lesser degree. This effect can be seen in Figure 3.9, which presents the data from Figure 3.4 as a line graph so the slopes can be compared.

It seems that a raised ‘Concern if Negatively Evaluated by Others’ may be a vulnerability factor for psychopathology in general, and raised ‘Concern if Negatively Evaluated by Strangers’ may be a vulnerability factor for anxiety conditions.

Hypothesis 2 concerned the likelihood of negative evaluation. It was predicted that high anxiety subjects will tend to give greater likelihood of negative evaluation for all groups of ‘others’, compared to low anxiety subjects. This was fully supported for high anxiety groups defined by their SAD or Leeds Anxiety levels. This extends the finding in Study
An interesting observation on the relationship between SAD level and Likelihood and Concern scores was that Likelihood of Negative Evaluation was affected mainly by SAD level rather than clinical status (i.e., Control vs Clinical subject), whereas Concern if Negatively Evaluated was mainly affected by clinical status rather than SAD level (as described above). It may be that raised likelihood of negative evaluation is a 'cognitive distortion' typical of people high in anxiety, whereas the 'cognitive distortion' of raised concern if negatively evaluated by Others is typical of a number of psychopathological conditions, and constitutes a non-specific vulnerability factor.

Hypothesis 3, that likelihood of negative evaluation will be greater for medium social distance 'others' (i.e., Friends and Colleagues), compared to close (Family) or distant (Strangers) 'others', was based on this pattern being found in Study 2. This pattern was not found in the present study, where in fact Strangers were thought most likely to negatively evaluate. However, the design of the PRQ-3 allowed comparison of the severity level of the different situations, as each situation was observed by Strangers, and the ratings of how likely Strangers were to negatively evaluate gave a measure of the severity of that situation, and of the severity of the hypothetical thoughts linked to that situation. The ratings by Strangers did differ considerably and significantly between situations, so further comparisons between situations should not be made, and Hypothesis 3 cannot be tested.

Hypothesis 4 predicted the intercorrelations of the scales. FNE was predicted to correlate with both likelihood and importance of negative evaluation, the correlation with importance being higher. This pattern was well supported, FNE correlated highly with the Concern scales, particularly with Concern if Negatively Evaluated by Strangers (.65), showing these two variables share 42% of their variance. The correlation of FNE with Concern if Negatively Evaluated by Strangers was significantly higher than the correlation of FNE with Likelihood of Negative Evaluation by Strangers, as predicted, but the difference in the corresponding correlations for Close Others just failed to reach significance.

SAD was predicted to only correlate with likelihood of negative evaluation, which was not supported as SAD correlated with both likelihood and concern about negative evaluation. This was the pattern observed in Study 1, but not replicated in Study 2. In fact the correlation of SAD with importance attached to negative evaluation in Study 2 was .20, which just failed to reach significance (p < .07). As the present study used the largest
sample, and the PRQ-3 was designed to increase the discrimination of importance attached to negative evaluation compared to the PRQ-2, the pattern of correlations found in this study (which is similar to Study 1) is probably the most accurate.

The multiple regression analysis may explain the varying results with regard to SAD and the Importance measures. In Study 1, 30% of the variance in SAD was predicted by Likelihood of Negative Evaluation by Strangers (Beta = .38) and Likelihood of Negative Evaluation by Colleagues (Beta = .31). In Study 2, 23% of the variance in SAD was predicted by Evaluative Tone (derived from Likelihood of Positive Evaluation - Likelihood of Negative Evaluation), with a Beta of -.46. In the present study 20% of the variance in SAD was predicted by a combination of Likelihood of Negative Evaluation by Strangers (Beta = .33) and Relative Importance (Beta = -.24). The link between SAD and Likelihood of negative evaluation has therefore been replicated twice, but the importance scales only contributed to the prediction in the present study, and this was as a derived variable reflecting the difference between concern about evaluations by close others and evaluations by strangers. The varying correlation between SAD and the importance scales across the three studies may therefore be due to SAD being only weakly linked with absolute levels of importance attached to negative evaluation, and being more related to the relative importance of different types of 'other'. This is not apparent from the correlations of SAD with the importance measures, as it correlates higher with one of the absolute scales (.37 for Concern if Negatively Evaluated by Strangers), than it does with the relative measure (-.31). However, the regression result shows that after the effect of likelihood of negative evaluation by strangers is partialed out (as it was the first predictor extracted) of the importance measures, then the importance scales did not add to the regression equation, but relative importance did.

Of general interest are the correlations of the SAD and the FNE, which have been consistent across the three studies, being .53 in Study 2, .60 in Study 3, and .58 in the present study. These compare with Watson and Friend's reported .51 in one study, and .32 in another (Watson and Friend, 1969). The correlations suggest that Watson and Friend's reported aim of fostering a discriminant relationship between the two scales was not entirely successful.

Leeds Anxiety was predicted to correlate with both likelihood and importance of negative evaluation, which it did, at .39 and .47 with Likelihood of Negative Evaluation by Close Others and Likelihood of Negative Evaluation by Strangers respectively, and at .31 and .39 with Concern if Negatively Evaluated by Close Others and Concern if Negatively Evaluated by Strangers respectively.
The association between Leeds Anxiety and evaluation-linked cognitions about others (particularly distant others) was also seen in the multiple regression results, where 26% of the variance in Leeds Anxiety was predicted by a combination of Likelihood of Negative Evaluation by Strangers (\(\text{Beta} = .37\)) and Concern if Negatively Evaluated by Strangers (\(\text{Beta} = .21\)). Again both likelihood and concern scales were linked to Leeds Anxiety.

Leeds Depression was predicted to only correlate with likelihood of negative evaluation, but this was not supported as it significantly correlated with both likelihood and concern measures, although the correlation with the likelihood measure (\(r = .38\)) was significantly higher (\(p = .03\)) than with the concern measure (\(r = .20\)) for Close Others. The hypothesis was based on the finding in Study 2 that Depression only correlated with the likelihood measures. The different finding in the present study could be due to the larger sample size making apparent what are fairly small correlations, or due to the changes in the PRQ improving the discrimination of the Concern scales.

The multiple regression showed a similar picture, with the main predictor of Depression being Likelihood of Negative Evaluation by Close Others (\(\text{Beta} = .32\)), and Concern if Negatively Evaluated by Strangers being the second predicting variable (\(\text{Beta} = .15\)). This is also similar to the regression equation in Study 2, where Depression was predicted by Likelihood of Negative Evaluation (\(\text{Beta} = .43\)) and Relative Importance (\(\text{Beta} = -.30\)). The PRQ-2 did not have separate scales for close and distant others, but the involvement of the Relative Importance derived scale shows that high Depression was linked to high concern if negatively evaluated by strangers (as this gives a low Relative Importance).

The Depressive Experiences Questionnaire factor Dependency was predicted to correlate highly with importance of negative evaluation, for both close and distant Others, and the Self-Criticism factor to correlate highly with likelihood of negative evaluation, for both close and distant Others.

The predicted associations were found, Dependency correlated highly with the importance of negative evaluation (.54 and .59 for close Others and Strangers respectively), and Self Criticism correlated highly with the likelihood of negative evaluation (.49 and .45 for close Others and Strangers respectively). These correlations support the criterion validity of the PRQ-3, and suggest that the distinction between likelihood and concern about negative evaluation, originally derived from exploring cognitions related to anxiety, is also central to depressive cognitions.

Dependency also correlated with likelihood of negative evaluation (.40 and .43), and Self Criticism also correlated with importance of negative evaluation (.34 and .31). These correlations may reflect the common variance shared by all the scales (apart from DEQ-
Efficacy), which was apparent in all the factor analyses involving all the scales, where the first un-rotated factor always loaded all the scales highly (above .6), and accounted for about 50% of the total variance. This large common variance supports the warning given by Turk and Rudy (1992), that the proliferation of cognitive measures that has occurred has paid little attention to overlap between the measures and whether they are measuring different constructs or some common latent construct. However, as the various cognitive measures are all measuring cognitions associated with psychopathology, then they would be expected to intercorrelate to an extent. There are also a number of ways of overcoming the problem of shared variance. Hypotheses about correlations should state which variables should not correlate, as well as which should. Techniques such as factor analysis and regression are particularly useful as they help to identify the unique contribution of a variable.

The correlation between DEQ-Dependency and DEQ-Self Criticism of .38 (df=188, \( p < .001 \)) was probably due to this common variance rather than the two schemas being closely interrelated, the latter possibility being discussed by Franche and Dobson (1992). They found that Dependency and Self Criticism correlated highly at .81 in their study of 20 depressed subjects, 20 remitted depression subjects and 20 controls. Franche and Dobson suggest three explanations of their high correlation: that the two schemas may in fact reflect the same construct; that they may be interdependent; and that they may be independent schemas which at times co-occur in the same individual. The present results support the latter explanation, as the two schemas would co-occur mainly in depressed people, and the lower proportion of subjects with depression in the present study (16%), compared to that of Franche and Dobson (where 67% were depressed currently or had been depressed), could account for the lower correlation found in the present study.

The prediction that the Irrational Beliefs Test scale Demand for Approval would correlate highly with importance of negative evaluation was partly supported, as Demand for Approval correlated quite highly with Concern if Negatively Evaluated by Strangers \( (r=.52) \), and with Concern if Negatively Evaluated by Close Others \( (r=.42) \), but it also correlated with the two likelihood of negative evaluation measures \( (.44 \text{ and } .41) \).

Comparison of the sizes of the correlations did not reveal any significant differences. Again this tendency to correlate around .4 may be due to the common variance in the different measures of psychopathology.

Other IBT scales that are relevant to the concepts of likelihood and concern about negative evaluation are IBT-High Self Expectations and IBT-Anxious Overconcern. Both these scales were related to FNE in Glass and Furlong's (1990) study \( (r's \text{ of } .46 \text{ and } .35) \).
respectively), and showed high correlations in the present study (r's of .58 and .56 respectively). IBT-High Self Expectations correlated significantly with all the PRQ-3 scales, the highest being the two likelihood scales (.47 and .46 for Close Others and Strangers respectively). It seems that high self expectations are linked to high expectations of being negatively evaluated by Others.

IBT-Anxious Overconcern again correlated with all four PRQ-3 scales, the highest (.56) being with Concern if Negatively Evaluated by Strangers. As this was the PRQ-3 scale on which the 'overconcern' of subjects prone to anxiety was most apparent, the correlation further supports the validity of the PRQ-3.

Hypothesis 5 stated that in the factor analysis of the results, general anxiety and FNE would load on an Importance factor, SAD would load on a likelihood of negative evaluation factor, and Depression on a different factor. The factor analysis yielded three factors, as mentioned above the first factor before rotation accounted for about half the total variance (of all the scales), and appeared to be a general psychopathology factor, on which all the scales loaded above .6. The remaining two factors, accounting for 11.6% and 9.6% of the variance, were Concern if Negatively Evaluated and Likelihood of Negative Evaluation. The Concern factor loaded FNE highly, supporting the Hypothesis, but SAD did not load on the likelihood factor, and in fact loaded more on the Concern factor (.27), and Anxiety did not load very highly (.20) on the Concern factor, contradicting the hypothesis.

Depression mainly loaded the general psychopathology factor, with a low loading (.21) on the Likelihood factor, which was consistent with the hypothesis that it wouldn't load on either of the PRQ defined factors, which was the picture in Study 2. The DEQ scales loaded in line with the correlational predictions in Hypothesis 4, Dependency on the Concern factor, and Self Criticism on the Likelihood factor.

A further factor analysis involving the derived variable Relative Importance produced two factors, a general psychopathology factor and one defined by Relative Importance, accounting for 12.9% of the variance. The latter factor loaded SAD and FNE quite highly (-.58 and -.51 respectively) and shows that although social anxiety failed to load on the Concern or Likelihood factors, it was related to the relative concern attached to close and distant others, rather than absolute levels of concern. This provides further support for the effect demonstrated in Figure 3.9, that high social anxiety is associated with a failure to adequately differentiate close and distant others.

Taking the results of the factor analyses from Study 2 and the present Study together then the only replicated findings are that 'concern with' and 'likelihood of' negative evaluation
load on separate factors, and that FNE loads on the Concern factor. Anxiety and SAD vary in where they load on these two factors, and Depression doesn’t load highly on either.

Hypothesis 7 predicted the relationships between the diagnostic groups and the PRQ-3. Although the overall accuracy of prediction was not particularly high (58%), it was reasonably high for Concern if Negatively Evaluated by Strangers, where the only errors were for Panic Disorder and Adjustment Disorder with Anxious Mood, which were predicted to have medium levels but in fact had high levels. On this scale (Concern if Negatively Evaluated by Strangers) four out of the five anxiety conditions (Agoraphobia, Panic Disorder, Social Phobia, General Anxiety Disorder and Adjustment Disorder with Anxious Mood) had high levels, the exception being GAD which had medium levels. The two depression conditions had medium levels, and Controls and Spider phobics had low levels. The latter group, Spider phobics, are best regarded as a second control group rather than an anxiety group, due to their low scores on SAD, Leeds Anxiety and Depression.

The scores of the diagnostic groups on the PRQ-3 showed interesting patterns. For the Likelihood measures few diagnoses differed from Controls (only Agoraphobics were higher). For the Concern measures nearly all diagnoses differed from Controls (only Adjustment disorder with depressed mood differed for close Others, and Specific Phobics for Strangers). This confirms a point made earlier, that Likelihood was not related to clinical status, whereas Concern was. Again it seems that heightened Concern if Negatively Evaluated by Others may be a vulnerability factor for a wide range of psychopathological conditions.

The scores of the Agoraphobic group were interesting as they were the only diagnostic group to be in a higher category than Controls on the Likelihood scales, suggesting that a specific cognitive feature of agoraphobia may be the raised expectation that Others will be critical of the subject.

Another group with interesting scores was Adjustment Disorder with Anxious Mood. They were the second highest group overall on the PRQ-3, and the only group to be high on both the Concern scales. It may be that these subjects developed their anxious reaction to a life event because of the their overconcern with the evaluations others have of them.

The majority of the hypotheses discussed above involved the relationship between anxiety, particularly social anxiety, and the cognitions measured by the PRQ. A major caveat to the interpretation of the results as being due to the specific effects of anxiety is the confounding of anxiety and depression, a problem discussed by Bruch et al (1993). As
there was considerable overlap between the high SAD and high Depression groupings (e.g. of the 75 subjects in the high SAD grouping, 48 of these also fell in the high Depression grouping) it is possible that some of the observed relationships between social anxiety and cognitive measures were in fact due to depression. Indeed, the interaction between concern attached to negative evaluations by various 'others', and Controls/Low Depression/High Depression groupings, was significant ($F=8.03$, df=2, $p=.001$), showing that the pattern of relationships in Hypothesis 1 was also found for Depression as well as social and general anxiety. It may be that this pattern, an overconcern with what strangers think of oneself, is a genuine characteristic of both anxiety and depression separately, or that it is a characteristic found when both anxiety and depression are present, or that it is only linked to anxiety or depression and confounded with the other. The results provided some evidence for the latter suggestion, that the relative overconcern with what strangers think of oneself is primarily linked to social anxiety, and then by association with depression, in that the regression analysis produced Relative Importance (the variable that is the most direct measure of the pattern of association proposed in Hypothesis 1) as a predictor of SAD, but not of Depression. Also, the factor analysis that included Relative Importance produced a factor defined by this variable (see Table 3.14), which loaded SAD highly (.58), but Depression at a much lower level (.20).

A second major limitation of the present study is that demonstrating correlational links and inter-group differences between cognitive measures and symptom measures doesn't show the direction of causality. For example, it is not clear if being anxious makes people expect that others are likely to negatively evaluate them, or if the cognitive set that others are likely to negatively evaluate them makes people anxious. To examine causality it is helpful to look at changes over time, and the following single case studies are an attempt to do this.
SINGLE CASE STUDIES

Mattick and Peters (1988) conducted one of the few studies assessing change in fear of negative evaluation, and irrational attitudes, during therapy for social phobias, where these cognitions are central. They attempted to measure the link between treatment-induced changes in irrational attitudes and long-term outcome. They treated 51 social phobics with either guided-exposure, or guided-exposure plus cognitive therapy. Part of the cognitive therapy involved analyzing thoughts elicited in the phobic situation for a) the likelihood that their interpretation of the situation was realistic, and b) the ultimate implication of the way they had labelled the situation. The combined group produced the greatest therapeutic gains, and regression analysis for all subjects showed that the only significant predictor of long-term outcome was change in fear of negative evaluation in therapy. However, there were no between group differences in FNE change, both groups showed a reduction in FNE, showing behavioural approaches can also produce cognitive change. This contradicts the finding of Butler (1985) who stated that exposure did not produce substantial or lasting changes on FNE.

Mattick, Peters and Clarke (1989) compared four treatments for social phobia: cognitive therapy alone, exposure alone, combined treatment, and a waiting list control. They again found combined therapy superior, that there were few between-group differences in cognitive change, but FNE change was the best predictor of improvement. There seem to be very few single case studies looking at cognitive changes during cognitive therapy, in fact computer literature searches failed to reveal any. A few studies were identified that looked at cognitive changes during primarily behavioural treatment. Last, Barlow and O’Brien (1984a) looked at cognitive change during the behavioural treatment of an agoraphobic using in-vivo tape recordings of verbalised thoughts. They found that although the subject made large improvements on behavioural, physiological and self-report measures of phobic severity, cognitions appeared to worsen. Last, Barlow and O’Brien (1984b) conducted a series of six single case studies looking at cognitive changes during cognitive/behavioural treatment of agoraphobia. They used a multiple baseline design whereby all subjects had a standard behavioural exposure treatment, plus a cognitive therapy component added in a later stage of therapy. Cognitions were assessed by in-vivo tape recordings of verbalised thoughts and thought-listing after the therapy session. Thoughts were later coded as positive, negative or neutral. The results showed that neither behavioural nor cognitive treatment produced clear or consistent changes in cognitions, and in fact the greatest cognitive improvements occurred during the baseline
phase. Commenting on Aeir failure to find clear evidence of treatment-induced cognitive change, Last et al say that evaluation of their results was hampered by the marked variation of the cognitive measures within a treatment phase, the lack of agreement between the two cognitive measures, and the relatively poor clinical outcome of several subjects. They also questioned whether thought sampling was a valid form of assessment as it often appeared misleading due to the great variability of cognitions across time within and between sessions. A further criticism of the thought sampling procedure used is the crudeness of the categorisation of cognitions into positive, negative and neutral. This could have missed significant cognitive change in terms of the degree of negativeness, whether the negative thoughts were about concern with or likelihood of negative evaluation, etc. It seems that more fine-grained specific measures of cognitions may be necessary to examine cognitive changes during therapy.

It is surprising that, given the importance of single case studies in the development of Behaviour Therapy, a similar pattern hasn’t occurred for cognitive therapy. Whether this is solely due to the greater difficulty in measuring cognitions compared to behaviour (as illustrated by Last et al above), or due to other differences, may become apparent during the single case studies reported here.

Bruch, Heimberg and Hope (1991) state that "Despite the burgeoning interest in cognitive-behavioral treatments... little is known about how cognitive processes change as a result of psychotherapy.... Prior research has been limited by the lack of adequate cognitive assessment techniques." (p.429-430). These single case studies are an attempt to use a specific measure (of cognitions about the concern with others’ evaluations of oneself) to look at change during cognitive therapy, in order to demonstrate the validity of the questionnaire, and to examine the chain:

Cognitive therapy -> cognitive change -> emotional and behavioural change.

Hypotheses

1. That cognitive therapy produces specific changes in the cognitions that are targeted, and no or little change in non-targeted cognitions. The PRQ-3 measures the two dimensions of 'Likelihood of being negatively evaluated' and 'Concern if Negatively Evaluated by Others'; these cognitions will be separately targeted by the cognitive therapy.

2. Cognitions about evaluations by others will be measured by both the PRQ-3 and by daily diaries. If the PRQ-3 is a valid measure then it should correspond with the diary measure.

3. Changes in cognitions will be accompanied by symptom change. Symptom change will
be measured by symptom questionnaires (Leeds Anxiety and Depression Scales) and by
diary measures.

Design
A multiple baseline design was used, the dependant variables being the
PRQ-3 and diary measures of the likelihood of being negatively evaluated, and concern if
negatively evaluated by Others.

Subjects
Criteria for selecting subjects, who were all G.P. referrals to the Clinical Psychology
Department for psychological therapy were:
1. Anxiety or panic attacks in social interactions, where there is particular concern with
being observed and evaluated by others.
2. A frequency of anxiety episodes/panic attacks of at least two a week.
3. No previous psychological treatment.

It was explained to the subjects that they would be taking part in a research study looking
in detail at changes in the way they thought during therapy, and they would have to keep
daily records throughout. All subjects asked to take part agreed.

Measures
The questionnaire measures used were the PRQ-3, FNE, SAD, Leeds Anxiety and Leeds
Depression, as the FNE is closely linked with the PRQ-3, and the other scales give
measures of the degree of anxiety and depression experienced by the subjects at different
stages. The FNE and SAD measure current thinking, and the Leeds scales measure
symptoms experienced in "the last day or two".

A daily diary record sheet (Appendix 9) was developed to measure:
a). The frequency and severity of panic attacks and non-panic anxiety. The severity
ratings of panic and anxiety were done on a 10 point scale, anchored with 1-a trace, 10-
worst.
b). The triggering situations and the resulting cognitions of the panic/anxiety.
c). The two dimensions of Likelihood of Negative Evaluation and Concern if Negatively
Evaluated. A 7 point rating scale (anchored at each end) was constructed for each, and the
subject asked to fill them in for when their panic or anxiety was at its worst that day. The
likelihood of negative evaluation by others (‘Likelihood NE by Oth.’ in the Figures) was
assessed by:
"When you felt panic or anxiety, did you believe that other people were thinking badly of
you, or would soon be?".
The concern if negatively evaluated by others (‘Concern if NE by Oth.’ in the Figures)
was assessed by:

"When you felt panic or anxiety, did it concern you that other people might be thinking badly of you?".

Separate ratings were not obtained for close others and strangers as this would have lengthened and complicated the daily diary. The social setting of the anxiety/panic and the recorded thoughts allowed post-hoc distinction to be made between close and distant others.

Subjects were asked to complete the diary sheet as soon as possible after a panic/anxiety episode. Concurrent recording would have been preferable, as they were likely to be more accurate, but pilot versions of the diary showed that most subjects found this impracticable. At times of severe anxiety they were too preoccupied by their immediate experience to want to, or be able to, fill in a diary sheet.

**Treatment Plan**

**SESSION 1.** Initial Assessment. Information gathered on problem seeking help for, history of problem, family background, significant life events, and current situation. Cognitions were only briefly explored, to avoid giving expectations of the changes expected during therapy which might have biased the later self-assessments.

**MEASURE**

PRQ-3, SAD/FNE, Leeds Anxiety and Depression given at end of session, with request that they be completed as soon as possible, and at the same occasion.

Daily Diary sheets were given, to be completed whenever any anxiety was experienced. This continued for the duration of the therapy. The two cognitive dimensions to be rated were explained.

**SESSION 2.** Relaxation training. Diary measures were briefly reviewed, mainly to ensure accurate recording. Some discussion of cognitions linked to the presenting problem took place to help the subject identify them. Progressive muscular relaxation was conducted in the session, and taped for the subject to use to practice daily at home.

PRQ-3, FNE/SAD and Leeds Anxiety and Depression scales given to be completed immediately prior to the next session.

**SESSIONS 3, 4 and 5.** Cognitive therapy, according to Manual (Appendix 8) on either:

a). Reducing expectations that Others will negatively evaluate the subject. This phase of
cognitive therapy is subsequently referred to as CT/L (Cognitive Therapy to reduce perceived likelihood that Others will negatively evaluate) where there is insufficient space to use a fuller label (such as in Figures).

b). Reducing concern about what Others, particularly Strangers, thought of them. This phase of cognitive therapy is subsequently referred to as CT/C (Cognitive Therapy to reduce Concern if Others Negatively Evaluate), where there is insufficient space to use a fuller label.

PRQ-3, FNE/SAD, Leeds Anxiety and Depression scales, to be completed immediately prior to next session.

SESSIONS 6, 7 and 8. Further cognitive therapy, as described in Manual, on whichever area (a or b above) not covered in sessions 3, 4 and 5.

PRQ-3, FNE/SAD, Leeds Anxiety and Depression scales, to be completed immediately prior to next session.

SESSION 9 Onwards. Cognitive therapy on both areas a and b as relevant to the case, up to discharge.

Follow-up at three months, when PRQ-3, FNE, SAD, Leeds Anxiety and Depression scales were posted to the subject, to be returned with the diary sheets for the follow-up period.

Initially two subjects were recruited. Subject A had sessions 3 to 5 on reducing 'Concern if negatively evaluated by Others' (CT/C), and sessions 6 to 8 on reducing 'Likelihood of negative evaluation by Others' (CT/L). This pattern was reversed for Subject B. Two further subjects were recruited, with the intention of repeating this alternation, but clinical criteria prevented this occurring (see later). Despite limitations due to not completing the full design these two cases still produced interesting data.

Data Analysis
In order to determine if a change in a PRQ-3 was statistically reliable, a minimum significant change (MSC) score was computed for each scale from the test-retest reliability data obtained in Study 3. There is a 5% probability of getting a change greater than 1.65 multiplied by the standard deviation of the change scores (for a 1-tailed test). The MSC's of the four PRQ-3 scales, (together with their shortened label to be used in Figures), are:
Likelihood of Negative Evaluation by Close Others (Likelihood NE by Cl.) 1.12
Likelihood of Negative Evaluation by Strangers (Likelihood NE by Str.) 1.43
Concern if Negatively Evaluated by Close Others (Concern if NE by Cl.) 2.14
Concern if Negatively Evaluated by Strangers (Concern if NE by Str.) 2.50

It can be seen that the lower test-retest reliability of the Concern measures results in larger changes being needed to be significant.

For the diary measures the Mann-Whitney Test was used to see if there was a significant difference between ratings in two blocks of time. The Chi-Squared goodness-of-fit test was used to see if the frequency of panic/anxiety attacks across different phases differed from a chance distribution.
Subject A.

Subject A was a 41 year old married woman with a fear of blushing in social situations, particularly in interactions with people in authority, or if she thought that people she was with might be critical of her. On average she had 2 blushing episodes a day, the episodes having features of a panic attack: a sudden escalation from feeling self conscious to very anxious, feeling flushed, incoherent, and with a desire to escape, and great concern that the Other would negatively evaluate her. She tended to avoid eye-contact with people, had difficulty holding a conversation, and stammered. She avoided going out alone, usually being accompanied by her husband, and struggled to cope with her part-time job in a supermarket. The problem developed 16 years earlier, following an incident in a shop where her mother-in-law said she was blushing and she became very self conscious. The treatment plan described above was adhered to:

Sessions 3 to 5 (CT/C) focused on reducing concern if Others, particularly colleagues and strangers (as these were the groups that caused most difficulty), negatively evaluated her. Sessions 6 to 8 (CT/L) focused on reducing the expectation that Others would negatively evaluate the subject. Sessions 9 to 11 involved cognitive therapy on both areas. Session 12 discharge after 1 month follow-up.

Progress of therapy.

There seemed to be less panics during the initial stages of therapy than was expected from the level reported at initial assessment (2 a week occurred compared to the 2 a day expected). This change is probably due to the non-specific effects of therapy. Subject A initially gave considerable importance to what Others thought of her, slightly more for close others than strangers. She didn’t expect Others, close or distant, to negatively evaluate her. This low expectation that Others would negatively evaluate her didn’t become apparent until session 2, and limited the usefulness of this case study as there was little scope for further reductions during the phase of therapy when these cognitions were targeted.

At the start of cognitive therapy the subject had difficulty identifying thoughts, and needed considerable encouragement to be more aware of them. This was seen in the diary records, where the thoughts she recorded were very brief e.g. "must cool down", "hope someone else joins me". The recorded thoughts sometimes produced examples of the targeted cognitions e.g. "she will think me daft", "looking stupid in front of line of
customers’, but not regularly enough to be analysed to look for changes during therapy. In the second phase of cognitive therapy it was possible to identify “irrational” thoughts about being negatively evaluated by Others, even though she initially said she didn’t perceive Others as likely to negatively evaluate her, and the PRQ-3 and diary sheets also showed low perceived likelihood of negative evaluation by Others. This was consistent with the limited awareness of anxiety related thoughts that this subject showed during therapy.

Subject A reported less anxiety and greater confidence as the therapy progressed, at the end of the 6th session she could cope well with short interactions, but was less confident about longer ones. During sessions 9 to 12 her panics continued to become less frequent and less severe. She found the relaxation particularly helpful in coping with panics, and rarely used the "counters" despite extensive coaching. She reported using concentration on the conversation to block self-consciousness as helpful, a technique that wasn’t explicitly taught during the therapy.

Although Subject A didn’t report cognitive changes during panic attacks, she did seem to accept, during sessions, that Others were not likely to negatively evaluate her, and showed less concern if they did. During the last month before discharge Subject A reported only one slight incident that she coped well with. She reported being confident of coping without further sessions. She was told to re-contact the therapist if problems re-occurred, but hadn’t done in the 20 months since discharge.

Questionnaire Data.

The PRQ-3 and Leeds Anxiety and Depression Scales were given at five points during therapy: immediately after the initial assessment interview, just before session 3 (start of first phase cognitive therapy- CT/C), just before session 6 (start of second phase cognitive therapy- CT/L), just after session 8 (end of second phase, start of mixed phase), and at discharge. The FNE/SAD was also given at the start and end of therapy. The FNE score reduced from 29 to 12, the SAD from 23 to 14.

Table 5.1 and Figure 5.1 show the changes in PRQ-3 during therapy. The Leeds Anxiety and Depression scores are not shown as they were near zero throughout (Anxiety Scores for the five occasions: 2,2,0,0,2, Depression Scores: 3,1,1,1,1).
Table 5.1 PRQ-3 scales during therapy for Subject A.

<table>
<thead>
<tr>
<th>PRQ-3 Scales</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of Negative Evaluation</td>
<td>Concern if Negatively Evaluated</td>
<td>Likelihood of Negative Evaluation</td>
</tr>
<tr>
<td>Initial scores</td>
<td>1.47</td>
<td>5.31*</td>
</tr>
<tr>
<td>Pre-CT/C</td>
<td>1.42</td>
<td>6.00*</td>
</tr>
<tr>
<td>Between phases of CT</td>
<td>1.22</td>
<td>4.64</td>
</tr>
<tr>
<td>Post-CT/L</td>
<td>1.17</td>
<td>4.50</td>
</tr>
<tr>
<td>1 month follow-up</td>
<td>1.11</td>
<td>3.08*</td>
</tr>
</tbody>
</table>

*,# Change over phases between scores with same superscript > MSC.

Figure 5.1

Subject A.
Changes in PRQ-3 during therapy.
Concern if Negatively Evaluated by Close Others was always greater than Concern if Negatively Evaluated by Strangers. Both increased slightly from session 1 to 3, reduced considerably during the first phase of cognitive therapy targeted on these cognitions, and decreased at a lower rate through the rest of the therapy. Using the criteria of the minimum significant change only the changes from before cognitive therapy started, to discharge, were statistically reliable.

Likelihood of being criticised started of at low levels, and decreased slightly, mainly during the early stages of therapy, and before these cognitions were targeted. There was no discernible change during the phase when they were targeted. No change in these measures was greater than the MSC.

Diary Data.

Diary data was summarised for four periods:

a). Session 1 to Session 3 which was the start of the first phase of cognitive therapy (6.5 weeks).

b). Session 3 to Session 6 which was the start of second phase cognitive therapy (7 weeks).

c). Session 6 to Session 9, start of mixed cognitive therapy (6.5 weeks).

d). Session 9 to Session 12, discharge (14.5 weeks).

The diary data was used to produce four indices, frequency of panic attacks (attacks per week), mean severity of panic attacks (rated on 1-10 scale), mean rating for likelihood of negative evaluation by Others (on 0-6 scale), and mean rating for how concerned subject would be if negatively evaluated by Others (on 0-6 scale). These data are shown in Figure 5.2.

The diary measure could have produced separate measures for close and distant others, based on which type of 'other' was involved in the incident being described. However, only 5 out of 36 incidents involved strangers, the majority involving colleagues and a few family and friends, and all the stranger incidents occurred during the initial phase of therapy, before cognitive therapy started. As it was not possible to produce stranger indices throughout therapy, and inspection of the data showed they were rated similarly to the close others, only combined close and distant other indices are reported.

The frequency of panic attacks went down considerably from the initial phase of therapy to the first phase of cognitive therapy, targeted on reducing concern if negatively evaluated by Others (from 2.2 per week to 0.9, One-sample goodness-of-fit test, Chi-Squared=3.87, df=1, p < .05). It rose slightly but non-significantly to 1.4 during the second phase of cognitive therapy (Chi-Squared=.36, df=1, NS), targeted on reducing
the perceived likelihood of negative evaluation by Others, and then fell significantly to 0.4 during the mixed cognitive therapy phase (Chi-Squared=6.07, df=1, p < .05).

Figure 5.2

![Graph showing diary measures during therapy.](image)

The mean severity of panics declined through the first three phases, and went up slightly at the end (4.2 to 2.8 to 1.9 to 2.3). However, no two phases were significantly different (Mann-Whitney Test).

The diary ratings of the likelihood of negative evaluation by Others were low, near the bottom of the scale, throughout the therapy.

The ratings of concern if negatively evaluated by Others decreased progressively during therapy, (mean levels in the four phases: 2.6, 1.7, 1.0, .5), but the only statistically significant change was from the first to the last phase (Mann-Whitney U=23, z=1.72, p > .05, 1 tailed).

**Discussion**

Hypothesis 1, that change would only be produced in the targeted cognitions, cannot be tested because the perceived likelihood of negative evaluation was low from the start, leaving little scope for further change, so Subject A produced no evidence that non-targeted cognitions did not change.
The targeted cognitions did change as predicted, in that the cognitions about being concerned if negatively evaluated by Others appear from visual inspection of the data to have decreased most quickly during the time they were targeted, although using the criterion of the Minimum Significant Change this reduction was not significant. The diary measure of concern if negatively evaluated by Others decreased progressively throughout therapy, the largest drop being in the CT/C phase, but this change was not statistically significant, the only statistically significant change was from the first phase, before cognitive therapy started, to the last phase, after the two targeted cognitive therapy phases. There was no change in the PRQ-3 measure of perceived likelihood of negative evaluation during the second phase of cognitive therapy, when these cognitions were targeted, but this was probably due to the floor effect. The diary ratings of likelihood of negative evaluation gave the same picture, being near floor throughout. Despite getting the predicted changes in concern if negatively evaluated, in the absence of meaningful data about likelihood of negative evaluation nothing can be said about the differential effect of the cognitive therapy.

Hypothesis 2, that there would be correspondence between the PRQ-3 scales and the diary measures, was supported. For 'concern if negatively evaluated by Others', both PRQ-3 and diary measures started high and were significantly reduced at the end of therapy. For 'likelihood of negative evaluation by others', both types of measure were low throughout. The correspondence was not tested statistically, as the two types of measure differed in timing, the PRQ-3 measures being available for five points in time, and the diary measures being averages for the four intervals between these points. The possibility was considered of averaging adjacent time points of the PRQ-3 to give four scores to correlate with the diary measures, but doing a correlation on only four data points did not seem statistically sound.

For the diary measure close and distant other incidents were not analysed separately, as the majority of incidents (30 out of 35) involved close others, mainly colleagues. The five incidents involving strangers all occurred in the pre-cognitive therapy phase. As there were not enough ‘distant other’ incidents to analyze separately, they were combined with the ‘close other’ incidents to give an overall rating for ‘others’. There was also correspondence between the PRQ-3 scales of Concern if Negatively Evaluated by Others and the FNE scale, the latter changing from 29 at the start of therapy to 12 at the end. Both decreased to about half their initial levels. Hypothesis 3, that changes in cognitions would be accompanied by symptom change,
received some support, in that the frequency of panic attacks significantly reduced during the course of therapy, as did the concern if negatively evaluated by Others. However, the apparent reduction in the severity of panic was not statistically significant. It was noticeable that there were fluctuations in the panic measures which appeared due to chance incidents occurring that were particularly difficult to cope with (e.g., an interview with the shop manager), and these fluctuations made it difficult to get statistically significant effects when there were relatively few panic attacks in some phases (only six in phase 2, CT/C, and six in phase 4, post CT/L) preventing the averaging out these chance incidents.

The Leeds Anxiety and Depression scales showed little change during therapy, mainly because they were so low initially (Anxiety = 2, Depression = 3). The Anxiety score was unchanged at the end of therapy, the Depression score had gone down to 1.

The SAD scale decreased from 23 initially to 14 at the end of therapy, showing a considerable decrease in social anxiety, but as this scale was not given at interim stages then the change cannot be linked to specific components of the therapy.
Subject B

Subject B was a 30 year old married woman who had suffered from anxiety and depression symptoms for most of her adult life. She had two children, aged 7 and 4. Her husband was unemployed and she worked part-time as a cleaner.

At the time of referral she avoided social situations in and out of the home, and became very anxious if she had to interact with people other than her husband, and had panic attacks if she felt trapped in social situations. She had periods of low mood but was not clinically depressed. She was very self critical, had low self esteem, and worried a great deal about what others thought of her. She had a poor relationship with her parents, being desperate for their approval, but never feeling she got it. She had two older sisters, and felt her parents favoured them to her.

The treatment plan described above was followed, with the first phase of cognitive therapy, (Sessions 3 to 5) focused on reducing the perceived likelihood of negative evaluation by Others (CT/L), and the second phase (Sessions 6 to 8) focused on reducing concern if negatively evaluated by Others, particularly colleagues and strangers (CT/C).

There was a gap of 10 weeks after session 8, as sessions were cancelled by Subject B due to work commitments, and the Session 9 was conducted over the telephone. No further meetings took place, Subject B said she was working extra hours and could not get to therapy sessions.

Progress of therapy.

Subject B had a high frequency of severe panic attacks. She described a high perceived likelihood of negative evaluation by Others, and a high level of concern if negatively evaluated by Others.

The first phase of cognitive therapy, on reducing the perceived likelihood of negative evaluation by Others, proved difficult to implement effectively. The subject had a strong dislike of herself, which reinforced the belief that Others would be critical. Cognitive therapy was also used to try to reduce this self-dislike. The Subjects mood became lower, and her GP prescribed an anti-depressant between sessions 3 and 4, and a tranquilliser between sessions 4 and 5. The gap between sessions 3 and 4 was four weeks due to a cancelled appointment.

The second phase of cognitive therapy, on reducing concern if negatively evaluated by Others, encountered a number of difficulties. Specific incidents, such as the threat of losing her job, and a family party, produced a lot of anxiety and tended to dominate the
sessions. In the eighth session, when the subject seemed to be more depressed again, it became apparent that the subject had difficulty accepting the premise that thoughts cause feelings. She was very pessimistic about change, attributing her problems to her personality. She seemed to fear change in case it led to her Mother rejecting her because she was more assertive.

It was intended to have extra sessions in phase two on reducing the concern if negatively evaluated by Others, but subsequent non-attendance prevented this. The final contact was over the telephone, the subject said she could not attend because she was very busy at work. She claimed to be coping slightly better, and reported some assertive behaviour with her mother for the first time.

**Questionnaire Data.**

The PRQ-3, SAD, FNE, and Leeds scales were completed at four points during therapy: Shortly after the initial interview, at the end of the first phase of cognitive therapy, CT/L, (mid cognitive therapy), after the second phase of cognitive therapy, CT/C, and at follow-up four months after the last contact. The questionnaires should also have been given prior to the start of cognitive therapy, but this was missed due to an administrative error.

The scores on the PRQ-3 scales are shown in Table 5.2 and Figure 5.3. The scores for the SAD, FNE, Anxiety and Depression scales are shown in Table 5.3 and Figure 5.3.

**Table 5.2 Changes in PRQ-3 scales during therapy for Subject B.**

<table>
<thead>
<tr>
<th>PRQ-3 Scales</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likelihood of Negative Evaluation</td>
<td>Concern if Negatively Evaluated</td>
</tr>
<tr>
<td>Initial scores (pre-CT/L)</td>
<td>4.33</td>
<td>6.33</td>
</tr>
<tr>
<td>Between phases of cognitive therapy</td>
<td>4.50</td>
<td>6.19</td>
</tr>
<tr>
<td>Post-CT/C</td>
<td>4.61</td>
<td>6.28</td>
</tr>
<tr>
<td>4-month follow-up</td>
<td>5.19</td>
<td>6.67</td>
</tr>
</tbody>
</table>

N.B. No changes over time were significant.
Table 5.3 Changes in questionnaires during therapy for Subject B.

<table>
<thead>
<tr>
<th></th>
<th>SAD</th>
<th>FNE</th>
<th>Leeds Anxiety</th>
<th>Leeds Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial scores (pre-CT/L)</td>
<td>25</td>
<td>29</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Between phases of cognitive therapy</td>
<td>29</td>
<td>30</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Post-CT/C</td>
<td>24</td>
<td>30</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>4-month follow-up</td>
<td>26</td>
<td>30</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>

Figure 5.3

N.B. The scales were arithmetically reduced for the Figure (SAD and FNE divided by 3, Leeds scores halved and 2 added) so they could be displayed on the same graph.

It can be seen that there were few clinically significant changes during therapy. SAD and FNE were near maximum throughout, Anxiety and Depression scores were also remained very high. There were also no statistically significant changes using the criterion of the MSC.
Concern if negatively evaluated by Others, whether the Others were close or strangers, was very high at all times, as was Likelihood of Negative Evaluation by Strangers. Subject B was consistent in describing close Others as less likely to negatively evaluate than Strangers would be, but the level for close Others was still quite high. As there were also no significant changes in the FNE, SAD, and Leeds scales, cognitive therapy had no effect on the questionnaire measures of cognitions or symptoms.

Diary Data.
The diary data for three time periods are shown in Figure 5.4. The time periods are:
Pre CT - Four weeks from the Initial Assessment to Session 3, when cognitive therapy was started.
CT/L - Nine weeks during phase 1 of cognitive therapy, targeted on reducing the perceived likelihood of negative evaluation by Others.
CT/C - Nine weeks during phase 2 of cognitive therapy, targeted on reducing Concern if negatively evaluated by Others. This period includes the five weeks after Session 8, up to the time the subject terminated therapy.
Diary data was not gathered during the interval to the follow-up contact due to the subject having terminated therapy.

Figure 5.4
The diary data was used to produce five indices, frequency of panic attacks (attacks per week), mean severity of panic attacks (rated on 1-10 scale), average anxiety (mean rating of non-panic anxiety on 1-10 scale), mean rating for likelihood of negative evaluation by Others (on 0-6 scale), and mean rating for how concerned subject would be if negatively evaluated by Others (on 0-6 scale).

Of the 86 panics recorded, 29 were in the presence of close Others, and 5 in the presence of Strangers. In the remaining 52 panics the subject was alone. Incidents of non-panic anxiety occurred virtually every day, in all but 7 cases when the subject was alone (on the 7 exceptions the subject was with close Others). Inspection of the data showed that ratings were equally high regardless of whether the subject was alone or with close Others or Strangers, so combined ratings are shown in the graph.

It can be seen that two of the three clinical measures, average anxiety and severity of panic, showed little change, remaining very high throughout. Frequency of panics did change significantly from the pre-cognitive therapy phase to the first phase of cognitive therapy (from 6 to 2.9 panics per week, Chi-Squared=6.94, df=1, p<.02, 2 tailed), but then increased slightly but non-significantly to 4 per week in the second cognitive therapy phase. The large reduction in panic frequency between the first two phases was less impressive in clinical terms. Inspection of the diary data suggested that the subject tended to have a better month followed by a worse month. The pre-CT phase was only 4 weeks long and was a bad month. The CT/L phase was 9 weeks long, and consisted of a good month followed by a bad month. The CT/C phase of 9 weeks had a similar pattern. The significant effect may therefore be an artifact of the relatively short pre-CT phase.

The two cognitive measures, scored on a 0-6 scale, showed no significant change, both 'likelihood of negative evaluation by Others', and 'concern if negatively evaluated by Others', remained high throughout.

Discussion.
Subject B showed only one significant change in all the clinical or cognitive measures, whether assessed by questionnaire or diary, during therapy, this being the halving of the frequency of panic attacks from the pre-cognitive therapy phase 1 of cognitive therapy (CT/L).

Hypothesis 1 was not supported, as the targeted cognitions did not differentially change. However, as the therapy proved ineffective in producing any cognitive change for Subject B no conclusions can be drawn about the specificity of cognitive therapy.
Hypothesis 2 received slight support, in that both the PRQ-3 and diary measures of
cognitions corresponded in showing unchanged high levels of Concern if Negatively Evaluated by Others, and high Likelihood of Negative Evaluation by Others, throughout therapy. The support is only slight as correspondence in no change is clearly less convincing than correspondence in change.

Hypothesis 3 also received slight support, in that cognitions and symptoms corresponded, as neither changed, all remained at high levels throughout. The apparent reduction in panic frequency appears to be an artifact due to the relatively short pre-CT phase.

A number of factors seem to be related to the absence of change in Subject B. The initial assessment suggested the anxiety mainly occurred in interpersonal evaluative situations, whereas as therapy progressed it became apparent that the anxiety was related to a strongly negative view of herself and ideas of worthlessness typical of depression (Beck 1967). The targeted cognitions may therefore not have been the most relevant ones for this subject, although they were certainly present and involved in much of the subjects reported anxiety.

The element of depression grew during the early stages of therapy, and received pharmacological help from the GP. This probably encouraged the attribution of causation of distress to biological factors, and may have undermined the cognitive model, as the subject seemed to reject the idea that thoughts cause feelings at this stage. The high degree of self-criticism also seemed to undermine the subjects sense of personal efficacy in controlling her emotions, and engendered an external locus of control, which made therapy more difficult.

An attempt was made from the second session of cognitive therapy onwards to counter the self-critical cognitions, but only part of the session could be used for this so as to still cover the planned therapy.

Another factor that appeared to inhibit cognitive change was the subjects highly dependent relationship with her mother. On a number of occasions the subject linked changing her cognitions with being more assertive with her mother, and feared that this would bring rejection from her mother, which she would not risk.

Subject B recontacted me 18 months after therapy terminated, asking for further help. She said during the re-assessment interview that she felt she hadn’t changed much during therapy because she hadn’t really wanted to change! She had not revealed all of the problem than, such as her husbands violence to her, and her developing relationship with a work colleague. These comments raise interesting questions about the motivation to change and the importance of self-awareness in cognitive therapy that are beyond the scope of the present research.
Subject C.

Subject C was a 52 year old married woman with three daughters, all in their twenties, the youngest being the only one still at home. The presenting problem was agoraphobia. Subject C had panic attacks in crowded situations such as supermarkets, buses and restaurants. She also tended to be anxious most mornings, when she worried about forthcoming events she felt she couldn’t cope with. The agoraphobia had developed about four years earlier at a time of stress connected with house moving. Subject C said she had always lacked confidence, feared being the centre of attention and was concerned about what Others thought of her.

The treatment plan above was followed, apart from an extra session at the end of the first phase of cognitive therapy, which was targeted on reducing concern if negatively evaluated by Others, to complete the planned therapy tasks for this phase. The second phase of cognitive therapy targeted the likelihood of negative evaluation by Others. There was only one session of mixed therapy, the Subject had made satisfactory progress and did not need further appointments.

Progress of therapy.
Between the first and second sessions the subjects daughter got married, this had been the cause of great anticipatory anxiety for the subject, but it went well and this considerably boosted the subjects confidence. The subject had no significant anxiety or panics during the first six weeks of therapy, in contrast to the frequency of almost daily reported at initial interview. The first incident of panic occurred walking to the dentist between sessions 3 and 4.

The subject appeared to respond well to the initial stages of cognitive therapy. A particular problem encountered was her tendency to worry about relapsing, and become disheartened if a panic did occur. The first phase of therapy (CT/C) was extended by one session as she had experienced two panics prior to this session and needed further work to reinforce the counters to her over-concern about Others’ evaluations of her.

By the start of the second phase of cognitive therapy, targeted on reducing the perceived likelihood of being negatively evaluated by Others (CT/L), she was making good progress with her agoraphobia, having no difficulty if accompanied, and was starting to do more alone. In this phase Subject C agreed immediately that Others were not likely negatively evaluate, saying she already thought like that. However, her diary ratings done at times of anxiety suggested that she did think Others were quite likely to negatively evaluate.
Towards the end of the second phase the subject had three panic attacks on consecutive days, the first two when out shopping, the third prior to going out. She was initially dispirited at the re-occurrence of her symptoms, but persevered in going out and had no more panics during the study period.

After the second phase of cognitive therapy there was one further session. At this final session the subject reported being cheerful and confident, and was shopping alone in town with no anxiety. Therapy was therefore terminated.

**Questionnaire Data**

The PRQ-3, SAD, FNE and Leeds scales were given at four times: at the initial assessment, at the start of the first phase of cognitive therapy to reduce concern if negatively evaluated by Others (CT/C), at the start of the second phase of cognitive therapy to reduce the perceived likelihood of negative evaluation by Others (CT/L), and at follow-up two months after therapy ceased. The results are shown in Table 5.4 and Figure 5.5 for the PRQ-3 scales, and Table 5.5 and Figure 5.6 for the other questionnaires.

The range of the questionnaires are shown on Figure 5.6 as the use of a common Y-axis scale could be misleading.

**Table 5.4 Changes in PRQ-3 scales during therapy for Subject C.**

<table>
<thead>
<tr>
<th>PRQ-3 Scales</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likelihood of Negative Evaluation</td>
<td>Concern if Negatively Evaluated</td>
</tr>
<tr>
<td>Initial scores</td>
<td>3.08</td>
<td>4.69</td>
</tr>
<tr>
<td>Pre-CT/C</td>
<td>3.56*</td>
<td>4.64*</td>
</tr>
<tr>
<td>Pre-CT/L</td>
<td>1.36*</td>
<td>2.53*</td>
</tr>
<tr>
<td>2-month follow-up</td>
<td>1.83</td>
<td>2.78</td>
</tr>
</tbody>
</table>

* Change between successive scores was greater than MSC.
Table 5.5 Changes in questionnaires during therapy for Subject C.

<table>
<thead>
<tr>
<th></th>
<th>SAD</th>
<th>FNE</th>
<th>Leeds Anxiety</th>
<th>Leeds Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial scores</td>
<td>19</td>
<td>23</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Pre-CT/C</td>
<td>19</td>
<td>21</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Pre-CT/L</td>
<td>9</td>
<td>10</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>2-month follow-up</td>
<td>13</td>
<td>8</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 5.5

All measures were fairly stable across the initial phase prior to cognitive therapy starting. The small changes in PRQ-3 scales were not significant using the MSC. The levels of anxiety and depression were moderate, the levels of SAD and FNE quite high. The levels of Concern if Negatively Evaluated by Others were fairly high for both close Others and Strangers, the predicted likelihood of negative evaluation by Others was moderately high, again for both close Others and Strangers.
During the first phase of cognitive therapy (CT/C), all measures declined. The decreases in anxiety and depression were only slight, and similar in magnitude to fluctuations during the pre-CT phase, so cannot be regarded as significant. The decreases in SAD, FNE and PRQ-3 scales were considerable, all to about 50% of initial levels. All the PRQ-3 decreases were significant (greater than the MSC).

The gap between Concern if Negatively Evaluated by Close Others and Concern if Negatively Evaluated by Strangers doubled during this stage (from 0.42 to 0.86).

During the second stage of cognitive therapy (CT/L), and follow-up, the levels of anxiety and depression continued to fall slightly, as did FNE, but SAD increased slightly, ending at 68% of its initial level. The PRQ-3 scales also increased slightly, but non-significantly using the criterion of the MSC. The gap between Concern if Negatively Evaluated by Close Others and Concern if Negatively Evaluated by Strangers reduced to 0.47.

**Diary Data.**

Only ten anxiety episodes occurred during the study period. Because of the low frequency the results are shown in Table 5.6, and not graphed. The low frequency of panics makes comparison of the four phases inappropriate.
Table 5.6 Diary data of anxiety episodes for Subject C.

<table>
<thead>
<tr>
<th>Phase of Therapy</th>
<th>Pre-CT</th>
<th>CT/C</th>
<th>CT/L</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration (weeks)</td>
<td>5</td>
<td>15</td>
<td>13</td>
<td>7.5</td>
</tr>
<tr>
<td>Episodes of anxiety</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Mean Likelihood of NE by Others</td>
<td>NA</td>
<td>3</td>
<td>3.6</td>
<td>NA</td>
</tr>
<tr>
<td>Mean Concern if NE by Others</td>
<td>NA</td>
<td>1.5</td>
<td>3.6</td>
<td>NA</td>
</tr>
</tbody>
</table>

NA- not available as no anxiety episodes to rate.

**Discussion.**

Hypothesis 1, that change would only be produced in the targeted cognitions, was not supported. During the first phase of CT both targeted and non-targeted cognitions showed large, statistically reliable changes, and during the second phase of CT both sets of cognitions showed a slight, non-significant increase. The lack of a differential effect on the two cognitive domains contradicts the hypothesis. Some slight support for the hypothesis could be argued from the increased gap between Concern if Negatively Evaluated by Close Others and Concern if Negatively Evaluated by Strangers during CT/C, as in this phase there was greater emphasis on reducing concern about evaluations by distant others than close others (see Treatment Plan). The gap narrowed during CT/L, when it was no longer discussed. However, the changes in the gap could be due to the Stranger cognitions being more malleable than the close other cognitions.

The CT/L phase failed to produce a change in the Likelihood scales. This could have been due to the inefficacy of the therapy, or to the floor effect as the scales were very low at the end of CT/C.

Hypothesis 2, that there would be correspondence between the PRQ-3 scales and the diary measures, cannot be commented on as there was insufficient diary data due to the subjects sudden improvement at the onset of therapy which reduced the frequency of panic attacks to a very low level.

Hypothesis 3, that changes in cognitions would be accompanied by symptom change, received some support as the SAD and FNE showed similar changes to the PRQ-3 scales (based on visual inspection as insufficient data points for statistical analysis), giving some validity to the latter. However, the anxiety and depression measures showed only a loose correspondence with the PRQ-3; they decreased slightly during CT/C, compared to the
large decreases in the PRQ-3 scales, and then anxiety and depression continued to decline through CT/L when the PRQ-3 scales slightly increased. A possible explanation for the lack of a closer correspondence could be that anxiety and depression levels, being multiply determined, change relatively slowly, so they started to decrease in CT/C and were still showing the beneficial effects of the earlier cognitive changes in CT/L.

The diary measures should have given information relevant to Hypothesis 3, but did not due to the very low frequency of panics (zero for the first and last stages).
Subject D.

Subject D was a 41 year old married woman with a 17 month baby. She had long-standing problems of lack of self-confidence and over-sensitivity to what others thought of her, and these problems had become worse since the birth of her child. She was frequently upset by perceived rejection or criticism in social interactions, and felt depressed at times. Her self-esteem was low. She helped her husband run a Sub-Post Office, and feared having to deal with argumentative customers.

Subject D was brought up by her Father from the age of 7 when her parents split up. Prior to them separating there had been frequent violent rows between her parents and older siblings. Subject D remained with her Father after her Mother left as she had been closer to him, and was rejected by her Mother for making this choice. Her oldest sister also remained with the Father, five other siblings went with the Mother.

Subject D’s Father was strict and over-protective, and her elder sister took over the mother role. There were suggestions that there had been a sexual relationship between Father and sister. Her Father had died 8 years ago, but she frequently thought about what he would have said about her behaviour, and felt guilty if he would have disapproved.

The treatment plan for Subject D was changed to fit in with clinical requirements. The first phase of CT should have been on reducing the perceived likelihood of negative evaluation by Others, but it was apparent in the initial sessions that the Subject’s over-concern about what Others thought of her was central to her distress, and it was not justified to delay treatment of this area. The first phase of CT therefore targeted concern if negatively evaluated by Others.

Progress of Therapy.

The first phase of CT went very well, by the second session on reducing the perceived likelihood of negative evaluation by Others, the Subject was saying that she no longer cared about what Others thought of her, and that she realised that only the opinions of really close people mattered. She also said she no longer bothered about whether her Father would have disapproved of her behaviour. She reported being more confident in herself, and having a positive approach to social interactions for the first time.

When incidents of social disagreement occurred she tended to be very upset initially, but then used the ‘counters’ she had learned and recovered quickly. The frequency of such incidents declined rapidly from the start of CT.

At the end of the first phase of CT (CT/C) the Subject was reporting very few incidents
of social anxiety, and claimed not to be concerned at all about what Others thought of her. Because of this the second stage of CT, (CT/L), was not carried out. The Subject said she didn’t care whether she was negatively evaluated by Others or not, and seemed to have a realistic idea of the likelihood of being negatively evaluated.

The next four sessions were spent discussing the Subject’s relationship with her Father and the sexually abusive elements of their relationship.

At the final one month follow-up session the Subject reported no incidents of social anxiety, feeling very confident and assertive, and being a "new person". Her communication with her husband had improved and she was forming new relationships with siblings she had been estranged from since childhood.

Questionnaire Data.
The questionnaires were completed immediately after initial assessment, at the end of CT/C, and at 1 month follow-up. Two administrations were omitted, the one prior to CT starting due to a procedural mistake, the one at the end of the second phase of CT due to this phase not being implemented. Table 5.7 shows the changes in the PRQ-3 during therapy. The changes in the PRQ-3 are shown in Figure 5.7, the changes in the other questionnaires in Figure 5.8.

Table 5.7 Changes in PRQ-3 scales during therapy for Subject D.

<table>
<thead>
<tr>
<th>PRQ-3 Scales</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likelihood of</td>
<td>Concern if</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>Negatively</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Evaluation</td>
<td>Evaluated</td>
</tr>
<tr>
<td>Initial scores</td>
<td>5.78&quot;</td>
<td>6.58&quot;</td>
</tr>
<tr>
<td>Post-CT/C</td>
<td>1.75&quot;</td>
<td>2.69&quot;</td>
</tr>
<tr>
<td>Discharge</td>
<td>1.56</td>
<td>2.19</td>
</tr>
</tbody>
</table>

* Change between successive scores was greater than MSC.
Changes in PRQ-3 during therapy.

Initial Post CT/C Follow Up
Stage of therapy

Concern if NE by Cl.
Concern if NE by Str.
Likelihood NE by Str.
Likelihood NE by Cl.

All four PRQ-3 scales showed a marked decline from near the top of the scale (1 to 7) to near the bottom during CT to reduce Concern if negatively evaluated by Others. The
scores then remained low at follow-up. The SAD and Anxiety scores also showed large decreases during the phase of cognitive therapy (from 23 to 6 and 16 to 8 respectively), the FNE a moderate drop (from a maximal 30 to 22), and Depression a slight decrease (from 7 to 6). At 1 month follow-up the SAD score had remained low (at 6), the FNE had dropped greatly (from 22 to 4), and Anxiety and Depression had both dropped to low levels (3 and 1 respectively).

Diary Data.
The diary data is summarised for three time periods. The first two cover the period between the first two administrations of the questionnaires: from initial assessment to the start of CT, and during CT/C. The final period was from the end of CT/C to discharge (during which time five further sessions occurred, not primarily aimed at changing cognitions as these had already changed). The diary data was used to produce four indices, frequency of anxiety episodes (attacks per week), mean severity of anxiety episodes (rated on 1-10 scale), mean rating for likelihood of negative evaluation by Others (on 0-6 scale), and mean rating for concern if negatively evaluated by Others (on 0-6 scale). The episodes involving Close Others and Strangers were analysed together, as inspection showed the ratings were similar, and there would have been too few incidents in each category if analysed separately. In fact the majority of incidents involved an in-between category, slight acquaintances such as other parents at a Mother and Toddler group. The diary data are shown in Figure 5.9.

Figure 5.9
The frequency of anxiety episodes fell greatly and significantly (Chi-Squared Goodness-of-fit Test, Chi-Squared=9.3, df=1, \( p < .02 \), 2-tailed) from the pre-CT to the CT/C phase, going from most days to about once a week. During the post CT/C phase it fell further to one episode in six weeks, this change also being significant (Chi-Squared Goodness-of-fit Test, Chi-Squared=8.0, df=1, \( p < .02 \), 2-tailed). The severity of the episodes showed no significant change, as did the ratings of likelihood and concern cognitions.

**Discussion.**

Hypothesis 1, that change would only be produced in the targeted cognitions, received no support. During the first phase of CT both targeted and non-targeted cognitions showed large changes, the same pattern found for Subject C. The second phase of CT was not implemented for clinical reasons.

Hypothesis 2, that there would be correspondence between the PRQ-3 scales and the diary measures, was not supported. The PRQ-3 scales showed a large reduction during CT/C, but cognitions rated at the time of the anxiety episode did not change. It seems that ‘cold’ cognitions, as tapped by the questionnaire, did change, but ‘hot’ cognitions did not. These ‘hot’ cognitions seem similar to Beck's (1967) automatic thoughts, that occur prior to conscious processing. The Subject reported that even after her improvement her immediate reaction to a social situation involving criticism was to be upset and concerned about what Others thought of her, but that this was rapidly followed by the rational counters she had learned, and the upset passed quickly.

The failure to find correspondence between the questionnaire measure and the diary measure probably reflects limitations in both measures. The questionnaire measure seems to give an ‘average’ cognition, the main way the person thinks in a given situation. The diary measure, because of the wording “when you felt panic or anxiety”, gives a snapshot of the immediate cognitions in a situation, which may change shortly afterwards as reported by this Subject. It may be that eventually the ‘immediate’ cognitions of great concern about the views of Others would be replaced by the cognitions that Others views’ don’t matter, as the latter cognitions would be reinforced by their anxiolytic effect. A further period of diary keeping by this subject after a six month gap would have been interesting to see if such changes occurred.

Hypothesis 3, that changes in cognitions would be accompanied by symptom change, received limited support. The frequency of anxiety episodes declined in line with the decline in the maladaptive cognitions, giving some support to the hypothesis, but the
severity of anxiety showed no clear change. This may be due to the assessment problem similar to that discussed above, whereby the severity ratings reflect the initial strength of the anxiety, and don't show the rapid recovery that the Subject said occurred as therapy progressed. If ratings of duration of anxiety had been done it would have picked this up.

SUMMARY OF SINGLE CASE STUDIES.
1. Some Subjects (all except D) initially found it hard to identify discrete, relevant cognitions. A short training phase might have helped these Subjects before therapy proper began. Subject D's rapid response may have been partly due to this cognitive 'skill' being present from the start.

2. All subjects were highly concerned about what Others, both close and distant, thought of them, but they varied to the extent that they expected Others to negatively evaluate. Subject A didn't expect any type of Other to be likely to negatively evaluate her, Subject B didn't particularly expect close others to negatively evaluate her, but she did perceive Strangers as being likely to negatively evaluate her. Subject C had moderately high expectations of being negatively evaluated by all groups of Others, and Subject D had high expectations of being negatively evaluated by all groups of Others. The picture is complicated by some subjects showing a discrepancy between what the subject reported in the session as thinking, and what they reported in their diaries. Subject A claimed in therapy sessions and in the PRQ-3 that she didn't perceive Others as likely to negatively evaluate, but some of her diary entries contradicted this.

3. Subject D was particularly interesting for the speed at which cognitive change appeared to occur. The subject reported a virtually complete change of attitude between the first and second sessions of CT, going from great concern about what everyone thought of her, to only bothering about close family. This contrasts with Subject B, who showed no change in cognitions over a long period. This raises such concepts as motivation to change, readiness to change, cognitive 'skills' necessary for change, matching therapy to individuals, etc, which all warrant further research.

4. Hypothesis 1, that cognitive therapy produces specific changes in the cognitions that are targeted, and no or little change in non-targeted cognitions, found little support. In Subjects C and D both Concern if Negatively Evaluated by Others, and Likelihood of Negative Evaluation by Others, showed very similar reductions, even though only the former cognitions were targeted. Subjects A and B produced little relevant evidence as for Subject A the 'Likelihood' cognitions were very low initially so the floor effect precluded
any significant change, and for Subject B neither cognitive area changed.
One explanation for the lack of specificity would be that the CT was not sufficiently
'pure' and non-targeted cognitions were accidentally involved. While efforts were made
by the therapist to avoid this, it might have occurred at times. A check against this would
have been to tape-record sessions and get independent judges to assess the 'purity' of the
therapy.

Further evidence with regard to the specificity of the CT comes from subscale scores in
the PRQ-3. During the CT on reducing concern if negatively evaluated by Others, the
Others involved were Strangers, acquaintances or colleagues in nearly all occasions. No
effort was made to reduce concern about family members being critical, as the
questionnaire research reported above suggested that non-anxious people tended to have
high concern about what family thought of them, so it was not appropriate to try and
change this cognition. Some differential changes might therefore have been expected in
PRQ-3 variables measuring concern with evaluations by family, friends, colleagues and
strangers. Table 5.8 compares the levels of Concern if Negatively Evaluated by Others,
before and after the phase of CT targeted on reducing this concern, which focused mainly
on the more 'distant' groups of Others.
Slight support for the CT having a specific effect comes from the fact that for all four
Subjects the least reduction in concern was always for Family, the group of Others that
were not targeted. However, this assumes that cognitions about the four types of other are
equally malleable, which may be untrue, it might be harder to change cognitions about
close others, particularly family, which results in the lower observed change for these
'others'.

Furthermore, even Concern if Negatively Evaluated by Family showed large reductions
for two of the Subjects, showing considerable generalisation of effect.

All four Subjects initially showed the pattern of 'Concern if Negatively Evaluated by
Others' that is typical of people high in social anxiety, as described in the questionnaire
studies reported above: high levels of Concern were shown for evaluations by all types of
Other. After CT targeted on reducing concern if negatively evaluated by Others
(particularly distant Others), all Subjects showed an increased differentiation between
Family and Strangers (see right hand column of Table 5.8). In Study 3 the mean
difference between concern if negatively evaluated by Family and by Strangers was 1.90
for Controls, 1.52 for low social anxiety clinical subjects and .86 for high social anxiety
clinical subjects. It seems that the single case subjects were moving in the direction of the
low anxiety subjects but, with the exception of Subject A, had not reached it at the end of
Table 5.8 Levels of Concern if Negatively Evaluated by Others, before and after CT to reduce concern.

<table>
<thead>
<tr>
<th></th>
<th>Others</th>
<th>Concern if NE by Family</th>
<th>Concern if NE by Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family</td>
<td>Friend</td>
<td>Colleague</td>
</tr>
<tr>
<td>Subject A</td>
<td>Before</td>
<td>6.2</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>5.9</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>% change</td>
<td>-5%</td>
<td>-47%</td>
</tr>
<tr>
<td>Subject B</td>
<td>Before</td>
<td>6.2</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>7.0</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>% change</td>
<td>+13%</td>
<td>-11%</td>
</tr>
<tr>
<td>Subject C</td>
<td>Before</td>
<td>4.6</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>2.8</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>% change</td>
<td>-39%</td>
<td>-54%</td>
</tr>
<tr>
<td>Subject D</td>
<td>Before</td>
<td>6.5</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>3.0</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>% change</td>
<td>-54%</td>
<td>-62%</td>
</tr>
</tbody>
</table>

Interestingly, Subject B, who showed no real clinical improvement, had an increased differentiation between close and distant Others, but she still had high levels of Concern if Negatively Evaluated by Strangers, so it seems that the 'non-pathological' position requires low levels of Concern about evaluation by distant others, as well as differentiation between close and distant Others. This is consistent with Study 3, where it was found that non-clinical subjects did have lower overall levels of Concern than clinical subjects as well as differentiating between close and distant Others.

5. **Hypothesis 2**, that there will be correspondence between the two types of cognitive measure, the PRQ-3 and the diary, received some support from Subjects A and B. Subject A showed close correspondence in the changes in the Concern measures, and the
Likelihood measures corresponded in that both measures showed no change. As commented earlier, correspondence in no-change is consistent with the hypothesis, but cannot be considered strong evidence. For the same reason Subject B’s demonstrated correspondence in no-change for both Concern and Likelihood measures is only weakly supportive.

Subject C did not have enough panic attacks to produce the necessary amount of diary information for comparison to the questionnaire.

Subject D’s evidence contradicted Hypothesis 2, as the questionnaire measures showed a reduction in cognitions that the diary measures showed no change in. The Subjects explained this apparent difference by saying that the immediate cognitions in an anxiety episode did not change, but as therapy progressed she could rapidly challenge and change her cognitions. The two measures therefore disagreed, as the diary was measuring the immediate, unchanged cognitions (due to the wording of the instructions, as discussed above), whereas the questionnaire was measuring the dominant cognitions.

If this explanation of Subject D’s discrepant results are accepted, then Hypothesis 2 received reasonable support, and the single case studies have produced further evidence of the PRQ-3’s concurrent validity.

6. Hypothesis 3, that changes in cognitions would be accompanied by symptom change, received some support. Little evidence was gathered from Subject B as only one of all the cognitive and diary measures showed a change during therapy, frequency of panics decreased during from Pre-CT to CT/L, and it has been argued that this apparent improvement was an artifact of the shorter time period of Pre-CT (see Discussion of Subject B).

Subject C provided no relevant evidence as her panics stopped almost immediately, before CT started, so no further symptom change was possible. Subject A showed a fair correspondence between reduction in anxiety-producing cognitions and anxiety symptoms, although there was considerable fluctuation in symptoms that seemed due to chance events.

Subject D produced a mixed picture, the frequency of anxiety attacks did co-vary with the cognitions, but the severity of anxiety didn’t. As discussed above, the latter finding may be misleading as although the initial severity of the anxiety in an ‘attack’ remained unchanged, the subject reported that it rapidly reduced as she used the cognitive techniques, but this was not shown in the severity ratings as the wording of the rating scale asked for the initial severity.

7. The difficulties encountered in doing these single case studies may partly explain the
lack of such studies in the published literature, commented on in the Introduction to this section.

Reliable and valid assessment of cognitions is a major problem with this type of study (see Last et al 1984b). However, the PRQ-3 proved fairly straightforward to use, but the Subjects seemed to find the diary measures more difficult. Some were erratic in completing all the sections, often missing out some of the ratings. Some initially seemed to have little awareness of their own thought processes, or found it hard to identify relevant cognitions. The wording of the rating scales was problematic, the wording used assessed the occurrence of the target cognitions, but not their duration. The wording was also not very appropriate for anticipatory anxiety, when the Subject was concerned about possible future negative evaluations, rather than evaluations at the time of the anxiety. To cover all types of anxiety would have required more rating scales, which then adds to the complexity of the assessment.

It also proved quite difficult to stick to the treatment plan for some of the Subjects, as some required more preparatory work in accepting the premise of CT, and training in identification of cognitions, and some progressed so quickly that some planned sessions were redundant.

For some subjects it was difficult, or at times clinically inappropriate, to maintain the focus of the therapy on social-evaluative anxiety. While all subjects had this type of anxiety, and for Subjects A and C it was their only significant problem, for Subjects B and D it was only part of wider problems and relationship problems/past sexual abuse issues also had to receive attention. It seems that a cognitively-defined problem is less clear-cut than a behaviourally-defined one, making the resulting therapy also less clear-cut.

Despite the problems in conducting cognitive therapy single case studies, the robustness of the multiple baseline design is sufficient for meaningful results to be produced given adequate measures of cognitions. The studies reported here support the validity of the PRQ-3, suggest that cognitive therapy does produce considerable cognitive change for some subjects, but that it produces wider cognitive changes than just the cognitions directly worked on. There was also support for the idea that cognitive change leads to symptom change.
FINAL SUMMARY AND DISCUSSION

This research has focused on specific cognitions in the domain of people's perception of how others evaluate them, and their concern with these evaluations, as these cognitions are seen as central to anxiety problems, particularly social anxiety. Of course other factors also determine social anxiety, such as low self-esteem and self-focused attention (Hartman, 1983), and these factors often interact with the concern about how others evaluate us.

The literature review addressed why people are so concerned with what others think of them, how this concern been linked to pathological conditions, and how might such cognitions be measured. Four research studies by the present author were then reported addressed to how and in what way people are concerned about what others think of them, and how this relates to various anxiety and depression conditions. This research focused on two main areas:

a) that the likelihood of being negatively, or positively, evaluated by others can be distinguished from the perceived aversiveness or pleasantness of receiving such evaluations by others.

b) that the 'others' whose evaluations we care about can be just close others, such as family, or nearly all possible others, including strangers.

The Personal Reactions Questionnaire was devised, through a number of revisions, to provide a reliable and valid way of assessing these two areas.

Study 1.

Study 1 used the initial version of the Personal Reactions Questionnaire, the PRQ-1, which had the format of a description of a social situation involving success or failure, in which the subject had to imagine themself, and then rate the likelihood of receiving various evaluations from others, and the importance they would attach to receiving these evaluations. This is a similar format to one used by Butler and Matthews (1983), but they asked subjects to rate the perceived threat in the situation, and the importance attached to various threatening outcomes, and separately asked for estimates of the likelihood of positive and negative events. The format used here was to ask the subjects to rate a particular type of threat, that of receiving a negative evaluation from others present in the social situation, and the cost attached to this evaluation. Four types of Others were used; Family, Friends, Colleagues and Strangers. Positive as well as negative events were included in the PRQ-1, as they were in the PRQ-2, whereas the PRQ-3 only used negative
events. Study 1, using 42 clinical subjects assessed for their social anxiety level, found that likelihood of being negatively or positively evaluated could be meaningfully distinguished from concern about that evaluation. In success situations the likelihood of a positive evaluation and the importance attached to it were correlated, but the two equivalent dimensions weren’t correlated in failure situations i.e. a self-enhancing bias seemed to be operating. Social anxiety appeared to be only linked with concern about negative evaluation in failure situations, and not with importance of positive evaluations in success situations i.e. people with high social anxiety didn’t want to be disapproved of, but weren’t particularly seeking approval. The results from the negative situations provide support for Schlenker and Leary’s (1982) self-presentational theory of social anxiety, which says that social anxiety occurs when a person is motivated to make a particular impression, but doubts they will do so. Social anxiety was linked with both concern about being negatively evaluated (i.e. the desire not to create a bad impression) and the likelihood of being negatively evaluated (i.e. their expectation of doing so). However, Social anxiety was not linked to desire to create a good impression or expectation of doing this in the positive situations, which is not consistent with the self-presentational model as those subjects that attached greater importance to receiving positive evaluations from others would have been predicted to be more likely to experience social anxiety, as would those that had low expectations of receiving positive evaluation.

All subjects gave less importance to evaluations by distant than close others.

Study 2.

Study 2, using 62 clinical subjects and 46 Controls, replicated some of the findings of the first study, showing that the PRQ-2 meaningfully distinguished between the likelihood of receiving a negative or positive evaluation from ‘others’, and the importance attached to that evaluation. Likelihood and Importance showed predicted patterns of relationships with other scales, supporting the validity of the distinction. High anxiety, compared to low anxiety, (both general and social), was linked to a greater concern with the evaluations Strangers have of the Subject. High and low anxiety subjects did not differ in their concern with what socially close ‘others’ think of them (Family, Friends and Colleagues), concern is great for both, they only differed in concern attached to evaluations by distant Others. It seems that subjects high in anxiety (social or general) attach high levels of importance to the evaluations ‘others’ have of them, regardless of
who the ‘others’ are. In contrast, those low in anxiety attach high levels of importance to what close social groups think of them (e.g. Family), but much less importance to what distant social groups think of them (e.g. Strangers).

Relative Importance (formed from subtracting the importance attached to evaluations by strangers from the importance attached to evaluations by Family, such that low Relative Importance means a lack of differentiation between close and distant others) predicted 19% of the variance in Leeds Anxiety, which seems considerable for one highly specific cognitive measure.

High anxiety subjects, whether social anxiety or general anxiety, tended to have a greater expectation that others would be critical in failure situations, and a lower expectation that others would be complimentary in success situations, compared to low anxiety and control subjects. Study 3 confirmed this finding with respect to failure situations (it did not include success situations). Leary, Kowalski and Campbell (1988) also found that high, compared to low, social anxiety subjects tended to expect others would evaluate them more negatively (based on the subjects reactions to a series of hypothetical scenarios, a similar approach to the PRQ). The present results showed that this effect was not specific to social anxiety, it was also found for general anxiety and depression.

Leary et al extended their findings by showing that the high social anxiety subjects tended to think that everyone would be more negatively evaluated, not just themselves i.e. they seem to have a generalised, non-personal, expectancy of low evaluation. Furthermore, those low in social anxiety also tended to think that other people would receive low evaluations in the given scenarios, but personally they would receive higher evaluations i.e. a self-enhancing bias seemed to be operating in those low in social anxiety. It would be interesting to extend the present research to look at this issue, this would require the PRQ to be revised to include other people than the subject as the actor in the scenario that is the recipient of the evaluations by the onlookers.

The Study 2 finding that high social anxiety was related to lower expectation of positive evaluation in success situations (in Study 1 it wasn’t) gives more support to Schlenker and Leary’s self-presentation theory of social anxiety than was found in Study 1, as this theory predicts social anxiety is linked to a lower expectation of a desired outcome irrespective of whether it is a success or failure situation. The change in result from Study 1 may have been due to the inclusion of Controls, which gave a greater spread of social anxiety and so revealed the fairly low correlation ($r=-.30$) with expectation of being positively evaluated.

To further test Schlenker and Leary’s 1982 theory of social anxiety a matrix was
constructed to show the levels of 'desire to create a particular impression' and 'low expectation of doing so' for high and low socially anxious subjects, in both success and failure situations (see Table 6.1). According to Schlenker and Leary social anxiety is the product of these two factors, which Leary (1983, p.66) expressed as:

\[ SA = f (M \times (1-p)), \]

where \( SA \) = level of social anxiety, \( M \) = level of motivation to make a particular impression, and \( p \) = the subjective probability of making the desired impression.

The levels in Table 6.1 were determined from the group's mean scores on the appropriate PRQ-2 scale, taking into account the relative scores of the groups and where the scores fell in the scale range. The levels were classified on the descriptive scale:

very low....low....fairly low......moderate.....fairly high....high

For clarity only predictions of high social anxiety are included.

<table>
<thead>
<tr>
<th>Schlenker &amp; Leary factor: PRQ-2 scale:</th>
<th>Desire to give particular impression (M)</th>
<th>Doubt will do so (1-p)</th>
<th>Predicted Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure Situations observed by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close Others</td>
<td>High SA Ss</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Low SA Ss</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Strangers</td>
<td>High SA Ss</td>
<td>Fairly High</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Low SA Ss</td>
<td>Low</td>
<td>Fairly Low</td>
</tr>
<tr>
<td>PRQ-2 Scale:</td>
<td>Importance attached to positive evaluation</td>
<td>1- (Likelihood of positive evaluation)</td>
<td></td>
</tr>
<tr>
<td>Success Situations observed by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close Others</td>
<td>High SA Ss</td>
<td>High</td>
<td>Fairly Low</td>
</tr>
<tr>
<td></td>
<td>Low SA Ss</td>
<td>High</td>
<td>Very low</td>
</tr>
<tr>
<td>Strangers</td>
<td>High SA Ss</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Low SA Ss</td>
<td>Moderate</td>
<td>Very Low</td>
</tr>
</tbody>
</table>
It can be seen that the predictions of the self-presentation theory of social anxiety accord closely with the finding of the present research which has shown that social anxiety is particularly linked to a relatively high concern about being negatively evaluated by Strangers, and to relatively high expectations of being negatively evaluated by Strangers. Schlenk's and Leary's theory describes how these combine to create social anxiety.

It is interesting to speculate about the emotions likely to result in the success situations, where the combination of high importance attached to positive evaluation, and high likelihood of receiving it (e.g. see Table 6.1 for Low Socially Anxious Subjects in success situations observed by close others) could produce social excitement. This positive side of expectancy-value theory seems to have received little attention, but could have utility, for example, in describing the cognitive processes mediating the acquisitive self-presentation style postulated by Arkin (1981), whereby people seek to maximise their rewards. Arkin distinguishes this from protective self-presentation, whereby people seek to avoid social disapproval, a process mediated by social anxiety.

Study 2 found that Depression was linked to a raised likelihood of negative evaluation, but not to the importance measures. This was not replicated in Study 3 where Depression was linked to both likelihood and importance measures, albeit more highly with likelihood. Study 2 also measured the real levels of perceived evaluation by others. Both high anxiety (social or general) and high depression groups perceived they had less positive levels of real evaluation by all types of other.

**Study 3.**

Study 3 used the PRQ-3, which was administered to 156 clinical subjects and 40 Controls. The PRQ-3 only contained failure situations, but assessed in more detail than in earlier versions of the PRQ. The reliability of the questionnaire was demonstrated by its high internal consistency, although test-retest correlations were not as high as was desirable, particularly for the Concern about evaluation measures. It was argued that these measures are not particularly stable, and the changes over time reflected genuine cognitive changes rather than being due to unreliability.

The validity of the PRQ-3 was demonstrated by a degree of internal replication, by factor analysis showing the homogeneity of the four main scales, the distinction between the likelihood and concern scales which formed clearly identifiable factors, and the predicted loadings of established scales. Post-therapy retest also supported the construct validity of the PRQ-3 (from the correlations of change in PRQ-3 scales with change in FNE), and its criterion validity (from correlations with clinical scales and therapist ratings that should be
affected by cognitive changes recorded by the PRQ-3).

The correlations of the PRQ-3 with measures of related cognitions, the DEQ, FNE and the IBT also supported the construct validity of the PRQ-3.

The finding that high anxiety (social or general) subjects showed little differentiation between concern attached to negative evaluations by close, as opposed to distant, others was replicated from Study 2. This suggests that high anxiety subjects want no-one to think badly of them, not quite the same as Ellis's (1962) 'irrational belief' that 'everyone must approve of me'. The finding that high anxiety subjects gave higher estimates of the likelihood of being negatively evaluated by all types of other was also replicated, a finding consistent with Butler and Mathews (1983), who found that General Anxiety Disorder patients gave higher estimates of the probability of negative events happening to them than did Controls.

The PRQ-3 scales predicted 20% of the variance of SAD (through a combination of Likelihood of Negative Evaluation by Strangers and Relative Importance), 26% of the variance of Leeds Anxiety (through a combination of Likelihood of Negative Evaluation by Strangers and Concern if Negatively Evaluated by Strangers), and 17% of the variance of Leeds Depression (through a combination of Likelihood of Negative Evaluation by Close Others and Concern if Negatively Evaluated by Strangers). It is interesting that the two anxiety measures were primarily predicted by the Stranger measures from the PRQ, whereas Depression was linked to likelihood of negative evaluation by close others.

Furthermore, the product of the two Stranger measures (concern and likelihood), which can be considered a measure of threat (threat= cost x probability; Carr, 1974), correlated highly with SAD ($r=.49$, $p=.001$) and so accounted for 24% of the variance in SAD. These results are also consistent with Schlenker and Leary's (1982) self-presentation theory of social anxiety, which links social anxiety with desire to give a certain impression (e.g. high concern if negatively evaluated) and doubt that the person will create this desired impression (e.g. high likelihood of negative evaluation). Table 6.2 shows the predictions made by Schlenker and Leary's theory of the social anxiety that would be experienced by the high and low social anxiety groups in the different situations used by the PRQ-3. The same system was used to classify the scores on the PRQ-3 scales as was described above for Table 6.1.

It can be seen that the high social anxiety subjects are predicted to experience anxiety when anticipating social failure in front of close others or strangers, and are particularly vulnerable in the Strangers situations where they maintain their high levels of concern about being negatively evaluated as for Close others, but also expect fairly high levels of
negative evaluation. Those low in social anxiety are less vulnerable as they have both lower concern if they are negatively evaluated by strangers (although it is still moderate), and lower expectations of being negatively evaluated (again this is still moderate). The observed cognitive patterns of those high in social anxiety in Study 3 therefore show close agreement with the self-presentation theory of social anxiety.

Table 6.2 Predictions of the Self-Presentation theory of Social Anxiety for Study 3.

<table>
<thead>
<tr>
<th>Schlenker &amp; Leary factor:</th>
<th>Desire to give particular impression (M)</th>
<th>Doubt will do so (1-p)</th>
<th>Predicted Level of Social Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptually similar PRQ-3 scale:</td>
<td>Concern if Negatively Evaluated</td>
<td>Likelihood of Negative Evaluation</td>
<td></td>
</tr>
<tr>
<td>Observed level</td>
<td>Observed level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Failure Situations observed by:</th>
<th>Close Others</th>
<th>Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SA Ss</td>
<td>Fairly High</td>
<td>Moderate</td>
</tr>
<tr>
<td>Low SA Ss</td>
<td>Fairly High</td>
<td>Fairly Low</td>
</tr>
<tr>
<td>High SA Ss</td>
<td>Fairly High</td>
<td>Fairly High</td>
</tr>
<tr>
<td>Low SA Ss</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

However, one area of possible disagreement is the specificity of the theory. The present research found the same cognitive pattern for groupings of the subjects based on general anxiety, as measured by the Leeds Scale (Snaith, 1976). This did not seem to be due to overlap between the two groups (57% of the high social anxiety group fell in the high anxiety group) as the magnitude of the various effects was very similar for the two groupings. The lack of specificity was confirmed by the diagnostic groupings, where the pattern was most marked for Agoraphobia, followed by Adjustment disorder with anxious mood, and then equally evident for social phobia and panic disorder (see Table 4.16). It may be that social-evaluation cognitions, and in particular the relative overconcern about evaluations by distant others and raised expectation of being negatively evaluated, are involved in most types of anxiety, and that certain individuals are identified as having 'social anxiety' because they have greater insight into the cognitions underlying their anxiety, and so are able to recognise the social element. For example, the author has often
met people with agoraphobia who state that their main fear is of collapsing in a shopping centre— the fear appears to be of physical illness. Further questioning often reveals that it is the social-evaluative consequences of collapsing that is feared rather than the danger to life. This view receives some support from Lawlis’ (1971) factor analytic study of the Fear Survey Schedule, which was given to 185 clinical subjects. He found that one factor accounted for 87.3% of the variance, which he described as ‘fear related to losing status or adequacy socially’ (p.100). It also accords with the writings of Harre (1979), who argues that ‘the pursuit of reputation in the eyes of others is the overriding preoccupation of human life.’ (p.3).

The present research also reveals one of the limitations of Schlenker and Leary’s theory of social anxiety: it gives a description of the mechanism of production of social anxiety, but has little to say about situation-specific individual differences (for example, differences in the relative importance attached to creating good impressions with close or distant others in those high and low in social anxiety). This is recognised in Leary (1983, p.175), who goes on to suggest these situation-specific individual differences, particularly those that characterise clinical subjects, should be the focus of further research and the development of new assessment procedures (p.186). The present research goes some way to meet this need.

Another interesting result in Study 3 came from the factor analysis involving the Relative Importance measure. This formed a separate factor to the main psychopathology factor, and loaded SAD quite highly, whereas analyses only using the main four PRQ-3 scales produced two factors defined by the PRQ-3, Likelihood and Concern, which did not load SAD. It seems that social anxiety is more related to the difference between importance attached to the views of close and distant others than it is to either separately, a point discussed further below.

The scores of the diagnostic groups further supported the validity of the PRQ-3, as they were mainly in line with predictions. An interesting finding from the analysis of the diagnostic groups, and replicated in comparisons of high and low anxiety groupings, was that Concern if Negatively Evaluated (by any type of other) differentiated Clinical from Control subjects, suggesting it was a non-specific vulnerability factor for psychopathology, whereas Likelihood of Negative Evaluation was more linked to the degree of psychopathology— e.g. it differentiated high from low anxiety, but not Controls from clinical subjects. Concern if Negatively Evaluated by Strangers, but not Close Others, was also related to the degree of anxiety. The relationships between the PRQ-3 scales of Concern if Negatively Evaluated by close and distant others, and clinical status were
clearly illustrated in Figure 3.9, reproduced below for convenience.

**Figure 3.9.**

![Comparison of Controls, Clinical/Low SAD and Clinical/High SAD subjects on Concern if Negatively Evaluated by close and distant Others (PRQ-3 scales).](image)

It seems then, that compared to Controls, clinical subjects with low anxiety tended to have a raised concern about being negatively evaluated by any type of other, although they maintained the differentiation between close and distant others that was shown by Control subjects. Clinical subjects with high anxiety often failed to differentiate between close and distant others, and also tended to have higher expectations of being negatively evaluated. Parsimonious explanations of the observed pattern suggest either one or two factors could be operating. The single factor explanation suggests that all clinical subjects have been affected by some innate or environmental factor that has raised their concern about being negatively evaluated by anyone. In the high social anxiety group this factor has operated even more strongly, but due to a ceiling effect (7 was the highest rating available on the concern scale) concern about being negatively evaluated by close others could not rise much further, so only concern about being negatively evaluated by strangers showed much increase. Candidates for such a factor were discussed in the literature review under the heading 'Theoretical origins of pathological differences', and included the innate Need for Affiliation (Murray, 1938), lack of love and respect for the person as a child resulting in striving for perfection and over-appeasing (Horney, 1950), high trait public self-awareness.
(Buss, 1980), protective self-presentation/low self-esteem due to high parental standards with frequent punishment and rejection, or lack of contingent reward for social success (Arkin, 1981; Arkin, Lake & Baumgardner, 1986). The symbolic interactionist approach suggests that our sense of self, and self-value, comes from perceiving the appraisals that others have of us. If in childhood there is uncertainty about the value others put on the child, then this could result in a generalised over-concern about the evaluations of others (Allaman et al, 1972), possibly as part of an 'anxiety' schemata. Perhaps if instead of uncertainty about the value others place on the child, the child's perception is that little or no value is placed on them, then a 'depression' schemata results, again with a generalised over-concern about the evaluations of others as a part of it. Such an explanation suggests that the observed linkage between depression and raised concern with others evaluations found in the above studies is not due to contamination of anxiety and depression, but is a genuine effect. It is also consistent with the finding that the best predictor of depression in Study 3 was the perceived likelihood of being negatively evaluated by close others - this association of depression and being negatively evaluated by close others perhaps originating in childhood.

The two factor explanation of the pattern in Figure 3.9 is that one factor (such as those just discussed) produces the general elevation of concern about negative evaluation from all others in clinical subjects, and the second factor produces the raised concern about negative evaluation by distant others in those with high anxiety, producing a differential effect between low and high anxiety subjects. A candidate for this second factor is that during childhood the parents over-emphasise the importance of the social self, through stressing appearance and manners (Buss, 1986, suggests this causes self-conscious shyness) presumably by both modelling and direct reinforcement. Bruch (1989) found that social phobics, compared to agoraphobics, were more likely to perceive their parents as over-emphasising the opinions of others and seeking to isolate them from social experiences (although in the present research the 'high concern with distant others' pattern was equally prominent in agoraphobia as social phobia). It may be that this hypothesised parental over-emphasis of the opinions of others is accompanied by parental over-estimation of the likelihood of others being critical, which results in the observed finding that high social anxiety was also associated with high likelihood of being negatively evaluated by a range of others. Alternatively, the high importance attached to negative evaluation may serve to facilitate memories of being negatively evaluated (through a mechanism such as Bower's Human Associative Memory, 1981), which via the availability heuristic (Tversky & Kahneman, 1974) increases the perceived probability of being negatively evaluated. Such
a linkage between the concern and likelihood cognitions is discussed further below in the context of the single case studies.

It seems likely that later experiences can counteract the effects of these childhood factors to a degree (as the single case studies showed that concern about being negatively evaluated is malleable), and that exposure to social situations, and the opportunity to self-select situations, as a person moves from teenage to independent adulthood, will allow the person to find an environment in which they receive predictable social approval, gain self-esteem, and so place less importance on what others think of them, particularly distant others. Such processes could be blocked when fear of disapproval results in protective self-presentation, the person "withdraws from social interaction, adopts neutral or conforming attitudes, is modest in attributions, and self-handicaps" (Arkin et al, 1986, p. 201). Such individuals are at risk of becoming more socially anxious, and may eventually seek therapy (although seeking therapy may be seen as likely to invoke social disapproval and so be blocked). For those that do reach therapy then cognitive therapy along the lines used in the single case studies may serve to reduce the overconcern with negative evaluation, and permit more social 'risk taking', with resulting positive feedback and growth in self-esteem.

**Single Case Studies.**

The final phase of the research was to conduct four single case studies of cognitive therapy for social anxiety, looking at the changeability of the concern about evaluations by others. All subjects initially had high levels of concern about what all types of other thought of them, but not all had high levels of likelihood of negative evaluation, supporting the above comment that Concern, not Likelihood, is raised in all clinical groups. Concern if Negatively Evaluated showed large changes for three of the subjects, although one changed before cognitive therapy started.

The single case studies found only slight support for the hypothesis that cognitive therapy only changes the targeted cognitions, it seemed that there was considerable generalisation to logically separate but frequently associated cognitions i.e. reduction in Concern if Negatively Evaluated by Others was accompanied by a similar reduction in Likelihood of Negative Evaluation by Others, even though only the former cognitions were targeted. However, data from the post-therapy re-test validity check in Study 3 suggest that Concern and Likelihood can vary independently during therapy, as the correlation between change in Concern if Negatively Evaluated and change in Likelihood of Negative Evaluation was .48 for close others, and .70 for Strangers, showing that for close others,
change in Concern predicted 23% of the variance in change in Likelihood, and for Strangers it predicted 49% of the variance. Although there was a strong link between change in the two cognitive areas (Concern and Likelihood), it appears that they can change differentially during therapy.

The finding of close correspondence between changes in Likelihood and Concern in the single case studies can be explained in a number of ways:

a). That the cognitive therapy was not as tightly targeted as was intended, a possibility discussed earlier. However, the correspondence seems too close for this explanation.

b). That the cognitive therapy taught a general technique of 'rational' thinking, which generalised to the non-targeted cognitions. This is one of the modes of action (the compensatory skills model) of cognitive therapy suggested by Hollon, Evans and DeRubeis (1988). These authors described three models of how cognitive therapy produces its effects:

i). The accommodation model, where the underlying cognitive schema/processes are changed.

ii). The activation-deactivation model, whereby the pathogenic schemas/processes become de-activated, and more benign ones become activated.

iii). The compensatory skills model, whereby cognitive skills are acquired that can be used to combat pathogenic schemas/processes.

Barber and DeRubeis (1989) suggest that the compensatory skills model best characterises the changes brought about by cognitive therapy, as it could explain the superiority of cognitive therapy over antidepressant medication in relapse prevention (e.g. Blackburn, Eunson and Bishop, 1986), and the main focus in cognitive therapy is often on the training of compensatory cognitive skills. Persons (1993) contrasts i and ii above (which she calls the 'schema change' model, with iii, the compensatory skills model, with regard to their timing and generality. The compensatory skills model implies that schema change does not occur during short-term cognitive therapy, but occurs later, following repeated use of the compensatory skills, and that the changes should generalise to related cognitive areas. The schema change model proposes that the schemas change during the period of the therapy, and should be specific to those addressed in the therapy. According to the schema model, Persons suggests, the 'primary appraisal' should therefore be reduced at the end of therapy, but not according to the compensatory skills model.

The single case studies produced evidence relevant to the schema versus compensatory skills debate. As mentioned at the beginning of b) above, the lack of specificity of cognitive change in the single cases supports a compensatory skills model, as these skills
would generalise to the non-targeted cognitive area. Further support for the compensatory skills model comes from the diary records of cognitions. Subject A reported cognitions during panic attacks that suggested she thought negative evaluation was likely, and yet rated the likelihood of negative evaluation, during the same panic attack, as low. This contradiction could be accounted for by the free response section of the diary measuring primary appraisal cognitions, which suggested that the ‘high-likelihood of negative evaluation’ schema was still present. The diary rating scale requires a more analytical response and therefore might be measuring the cognitive outcome of compensatory skills, which had served to reduce the impact of the ‘high-likelihood of negative evaluation’ schema, resulting in a low rating of the likelihood of negative evaluation.

Subject D also produced evidence supporting the compensatory skills model. The lack of correspondence between the diary measures, done at the time of the panic attacks, and the PRQ-3 scales, done at fixed intervals, was explained by the subject as being due to her immediate cognitions in the situation being unchanged by the therapy (these being measured by the diary ratings), but then she rapidly used the counters she had learned, the rational cognitions then dominated and her distress passed (the PRQ-3 scales measuring the resulting cognitions from this process). Subject D’s explanation closely accords with the compensatory skills model. The model could have been further tested by an extended period of diary record keeping, as according to Persons the repeated application of the compensatory skills should eventually produce schema change, which would be seen in the diary measure which seems to have measured primary appraisal for Subject D.

The data from these two subjects also shows the difficulty in measuring cognitions, as it appears that for Subject A the diary rating scales were assessing primary appraisal, whereas for Subject D they were assessing re-appraisal. This may be due to differences in the way subjects interpreted instructions about the use of the scales, or to differences in awareness of cognitions (Subject D was noticeably more adept at identifying cognitions than Subject A).

Although there was support for the compensatory skills model which could partly account for observed close correspondence of change in the two cognitive domains assessed in the single case studies, this does not seem sufficient to account for the results as the observed correspondence seems too close, greater change would be expected in the targeted cognitions with generalisation producing a smaller change in the non-targeted cognitions. That the two cognitive areas (Concern and Likelihood) are part of a schemata about negative evaluation that is activated or not according to mood (Kovacs and Beck, 1978, suggested such a mechanism for depressive schemata), and that reduction of Concern
reduced anxious mood, which de-activated the likelihood cognitions in the schemata. Johnson and Tversky (1983) report such a global cognitive change resulting from a mood manipulation, whereby reading about death due to one cause increased probability ratings of death due to all causes.

However, the results of the single case studies do not support this as during the phase when the cognitions showed large changes, the anxiety and depression measures showed little change apart from Subject D on anxiety (Subject A, -2 for anxiety, 0 for depression; Subject C, -2, -2; Subject D, -8, -1). Cognitive changes would therefore seem unlikely to be due to secondary effects of a mood change.

It may be that it is not necessary to involve mood as an intervening variable that activates certain schemata, as the Associative Network model of memory (Anderson and Bower, 1973; Bower, 1981) suggests that concepts that were associated at the time of storage (e.g. concern about a negative evaluation, images of being negatively evaluated, predictions made then about the likelihood of being negatively evaluated) will have linked 'nodes', and de-activation of one (i.e. concern about a negative evaluation) will reduce the facilitation of associated nodes (i.e. past predictions that negative evaluation was likely). If the present prediction of likelihood were based on the recall of past predictions, then this would in turn lower the perceived likelihood of being negatively evaluated, and give the observed linkage of the two cognitive areas.

d). That the two cognitive areas are linked together by the availability heuristic (Tversky and Kahneman, 1974). It may be that the cognitive therapy reduced the concern about being negatively evaluated, particularly by strangers (as targeted), which decreased the persons sense of threat and so their anxiety. According to the Associative Network model of memory (Bower, 1981), emotions form nodes in the associative network and are linked to nodes representing events that were same-mood related at the time of storage. When the person is anxious then the anxiety node will activate these associated nodes, facilitating recall of anxiety linked events. In the situation where anxiety is lowered by cognitive therapy as suggested above, there will be a lower accessibility of anxiety related memories, including memories of being negatively evaluated. This will, according to the availability heuristic (which suggests that judgement about probability is influenced by the ease with which exemplars can be recalled from memory) reduce the subjective probability of such events occurring again i.e. the perceived likelihood of being negatively evaluated is decreased. However, the evidence that anxiety can produce mood-congruent memory facilitation is mixed (see Williams et al, 1988, for a review). Also, this explanation of the correspondence of the two cognitive areas again uses mood change as an intervening
variable, and as mentioned above there was no evidence of any clear mood change. To overcome this objection it could again be argued, as for c) above, that mood as an intervening variable is unnecessary as the concern cognitions and memories of being negatively evaluated would be linked through the associative network and so activate or de-activate each other directly.

e). The two cognitive areas could be linked together by a different type of availability heuristic to that discussed above. Tversky and Kahneman (1973) suggest that for unique real life events then memories of exemplars cannot be used for prediction, so people base their prediction of probability on the ease with which they can construct scenarios that would lead to the event being predicted (although the probability of the elements used in the scenario may be predicted from memories of such events). This type of availability heuristic was called the simulation heuristic by Kahneman and Tversky (1982). There was some anecdotal evidence that such a heuristic operated from the cognitive therapy. For example, Subject A, when discussing the probability of blushing in front of her colleagues in the staff room and subsequently being ridiculed behind her back (she had no evidence that this had previously occurred) constructed such a scenario by combining the probability of blushing in front of colleagues with the probability of colleagues covertly ridiculing other colleagues. Interestingly, the component probabilities seemed to be combined irrespective of the fact that their contexts differed. Subject A’s memories of colleagues ridiculing other colleagues occurred in the context of the target person being disliked by the others, which did not apply as far as Subject A knew to herself.

It may be that reduction of the Concern cognitions by the cognitive therapy de-activated associated memories of negative evaluation (either directly or through mood change), which made it harder to construct scenarios that would lead to negative evaluation, and so this operation of the simulation heuristic would reduce the perceived probability of being negatively evaluated.

It should be noted that explanations d and e, based on the availability heuristic, are not reversible i.e. if it was the likelihood cognitions that were reduced by the cognitive therapy, then this would not have implications for the concern cognitions.

f). Although there was close correspondence in changes in the concern and likelihood cognitions, this correspondence was not 100% and closer analysis reveals subtle differences that may support the specificity of the therapy. The cognitive therapy was mainly focused on reducing concern about being negatively evaluated by distant others, with no attempt to reduce concern about being negatively evaluated by close others, particularly family. Inspection of Table 6.3 shows that the greatest reduction in Concern
### 6.3 Family vs Stranger cognitions before and after CT to reduce concern.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cognitions about Family</th>
<th>Cognitions about Strangers</th>
<th>Family minus Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Concern if NE</td>
<td>Likelihood if NE</td>
<td>Concern if NE</td>
</tr>
<tr>
<td><strong>Before</strong></td>
<td>6.2</td>
<td>1.6</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>After</strong></td>
<td>5.9</td>
<td>1.2</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>% change</strong></td>
<td>-5%</td>
<td>-38%</td>
<td>-22%</td>
</tr>
<tr>
<td><strong>Subject B</strong></td>
<td>6.2</td>
<td>6.3</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>After</strong></td>
<td>7.0</td>
<td>6.0</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>% change</strong></td>
<td>+13%</td>
<td>+40%</td>
<td>-5%</td>
</tr>
<tr>
<td><strong>Subject C</strong></td>
<td>4.6</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>After</strong></td>
<td>2.8</td>
<td>1.4</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>% change</strong></td>
<td>-39%</td>
<td>-61%</td>
<td>-60%</td>
</tr>
<tr>
<td><strong>Subject D</strong></td>
<td>6.5</td>
<td>5.7</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>After</strong></td>
<td>3.0</td>
<td>1.9</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>% change</strong></td>
<td>-54%</td>
<td>-62%</td>
<td>-61%</td>
</tr>
</tbody>
</table>

N.B. Data are staggered for clarity.
was for Strangers for all four subjects, and all subjects showed an apparently greater
differentiation between Family and Strangers after therapy. A similar pattern was not
found for Likelihood changes, where Family and Stranger cognitions tended to reduce by
similar amounts (excluding Subject B who didn’t appear to respond to the therapy), and
the differential stayed much the same. Hence although the three subjects who responded to
the therapy showed corresponding large changes overall for Concern and Likelihood
during the phase that only Concern was targeted, there is a suggestion from closer
inspection of the data that there were specific changes only in the Concern cognitions that
were consistent with the targeting of the therapy. The single case studies produced some
support for the link between cognitive change as measured by the PRQ-3 and symptom
change, but procedural problems limited the relevant data, namely that the wording used
for the symptom records requested initial severity of panic ratings, which failed to capture
changes in duration, and secondly that panic attacks, the main symptom measured, were
not just determined by the cognitions being measured and were clearly linked to
significant events in the persons life. Within an individual case there were not sufficiently
frequent ‘life events’ for these to balance out and so reveal symptom changes due to
cognitive changes for some of the subjects.

The validity of the PRQ-3 was examined by looking at its relationship with diary
measures of cognitions, which gave mixed results. The limitations of the diary measure
were discussed, namely that only the immediate cognitions were rated, which failed to
capture cognitive changes that occurred shortly afterwards.
The difficulties in conducting single case studies of cognitive therapy was also discussed,
particularly the problems in adequately assessing cognitions through diary measures, and
in adhering strictly to a standardised cognitive treatment plan when the idiosyncrasies of
the individual case dictate a more flexible approach. These problems may partly explain
the paucity of such studies in the literature.
It is interesting to examine whether the cognitions central to the studies reported above are
necessary or sufficient for the occurrence of social anxiety. It has been shown that high
social anxiety is associated with high concern if negatively evaluated by Strangers, low
relative concern (i.e little distinction made between strangers and close others), and high
perceived likelihood of being negatively evaluated. To see whether this ‘pathological’
cognitive pattern was found in all clinical subjects with high social anxiety, or in any of
the control group, cut-off scores were determined for each of the cognitions, whereby the
percentages of high SAD, and Control subjects, that were correctly classified were equal.
This resulted in cut-off scores of 4.11 for Concern if Negatively Evaluated by Strangers (which correctly classified 74% of Controls and 75% of the high SAD clinical group), .77 for Relative Importance (which correctly classified 69% of Controls and 68% of the high SAD clinical group) and 3.51 for Likelihood of Negative Evaluation by Strangers (which correctly classified 72% of Controls and 65% of the high SAD clinical group). Of the 115 subjects in the Control and High SAD groupings, 32 had the pathological pattern i.e. above the cut-off scores for Concern if Negatively Evaluated by Strangers and Likelihood of Negative Evaluation by Strangers, and below the cut-off score for Relative Importance. Of these 32 subjects, 31 fell in the High SAD grouping (N=75) and only 1 in the Controls (N=40). There were 21 subjects with the ‘healthy’ cognitive pattern (i.e. the converse of the pathological pattern), and 6 of these were in the High SAD grouping, and 15 in the Controls. The remaining 62 subjects had mixed patterns. It therefore seems that the full pathological cognitive pattern identified in the present research is not always necessary for high social anxiety, but is approaching being sufficient for it.

Future Studies.
Future studies could go in a number of directions:

a). The present research demonstrates some of the links between anxiety conditions and over-concern about evaluations by others, particularly distant others. This could be extended by examining whether such cognitions are necessary for anxiety of certain types to occur, as discussed briefly in the summary above: are they always present in social anxiety?, and if not, as suggested above, what are the differences between the cases where the cognitive pattern is and is not found? Do these cognitions have to be reduced in order for improvement to occur?

b). It would be interesting to look at mood related changes in the PRQ-3 measured cognitions. One subject interviewed in a pilot study commented that such cognitions seemed to vary with mood. A single case study with a non-clinical subject combining longitudinal mood assessment and Concern/Likelihood assessment would be appropriate, although the PRQ-3 might have to be shortened or an alternative measure devised for frequent administration.

c). Further single case studies could be conducted to look at the causes of cognitive change, as one subject changed before cognitive therapy started, apparently as a result of a successful life-event, and it would be instructive to examine how such events change cognitions.

d). A further single case repeating the design used above, where the first phase of
cognitive therapy was to change likelihood of negative evaluation, would be useful as this
sequence of therapy was only followed once, and that subject (B) failed to change, so it
was not possible to say if the lack of specificity of therapy applied to this sequence also
(compared to that where cognitions about concern were targeted first).
e). The present studies gave no direct information on the origins of the overconcern with
evaluations by others. Further studies might attempt to link the cognitions measured by
the PRQ with parental characteristics and child rearing practices, using tools such as the
f). The development of an over-concern about others' evaluations of oneself could be
studied by tracing these cognitions back into childhood. This would involve the devising
of new measures appropriate to different age groups. With a better understanding of the
origins and development of the concern about being negatively evaluated then it might be
possible to devise preventative strategies that could form part of recommended 'parenting'
guidelines and educational objectives. For example, being involved in public performances
during childhood may be beneficial, but this is usually a voluntary activity, so only those
with a low concern about being negatively evaluated may get involved. A policy of graded
exposure to such activities for all children might have considerable long-term benefits.
g). The finding that a general raised concern about what others think was linked to clinical
status could suggest that early intervention to reduce this concern should have wide
ranging benefits. However such research would be longitudinal and demanding to carry
out, and before embarking on such a course it would be necessary to demonstrate that the
cognitions in question have a causal relationship with psychopathology (this was suggested
by the effectiveness of the cognitive therapy in the single case studies), and that they have
a central role in predisposing people to psychopathology.
h). Finally, it is suggested that the PRQ-3 has utility as a highly specific cognitive
assessment tool, which may enable the testing of a variety of hypotheses concerning
cognitive therapy.
APPENDIX I

PERSONAL REACTIONS QUESTIONNAIRE-I

DATE .................. NAME ..................

Below and on the following pages you will find a number of situations briefly described. Please try to imagine yourself in each situation as vividly as possible. Then choose the statement that you think would describe the way you would respond if you were really in that situation. Try to choose one even if some will not fit exactly what you think you would do. To show which alternative you have chosen put a ring round your choice.

For all questions, except number 2, choose one statement from each group of four. Do not think too long before choosing. For question 2 answer yes or no for each line.

Remember to give the answer that is true for you.
- 2 -

A. You are walking along a busy street in the centre of town when you trip up and fall over, dropping a bag of groceries all over the floor.

1. How likely is it that people will think badly of you in this situation?
   a) Certainly think badly of me
   b) Very likely think badly of me
   c) Quite likely think badly of me
   d) Not at all likely to think badly of me

2. Will passers-by think:
   a) You must be drunk
   b) You are a stupid person
   c) You have made a fool of yourself
   d) You are clumsy
   e) Other (specify) .................................. 

3. The opinions of the people that saw you fall:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don’t matter at all

4. If passers-by thought you were drunk, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

5. If passers-by thought you were a stupid person, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

6. If passers-by thought you had made a fool of yourself, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

7. If passers-by thought you were clumsy, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all
B. You have gone out for the night with a group of friends, and during the evening one of them comments how smart you are looking, another of them commented that they had been thinking that also.

1. How likely is it that your friends will think highly of you:
   a) Certainly think highly of me
   b) Very likely think highly of me
   c) Quite likely think highly of me
   d) Not at all likely to think highly of me

2. Your friends were thinking:
   a) You were looking very good that night Yes/No
   b) They were pleased to be out with you Yes/No
   c) You were always smartly dressed Yes/No
   d) They liked your company Yes/No
   e) Other (specify) .........................

3. The opinions of your friends:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don’t matter at all

4. If your friends thought you were looking good that night, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all

5. If your friends were pleased to be out with you, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all

6. If your friends thought you were always smartly dressed, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all

7. If your friends liked your company, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all
C. You work in a small firm, where you have been for two years. Recently your boss came up to you when you were talking to your colleagues, and asked you to have a word with him as he was not happy with some of your work.

1. How likely is it that your colleagues will think badly of you:
   a) Certainly think badly of me
   b) Very likely think badly of me
   c) Quite likely think badly of me
   d) Not at all likely to think badly of me

2. Your colleagues would think:
   a) You're not very good at your job  Yes/No
   b) You are a useless person  Yes/No
   c) You are always making foul-ups  Yes/No
   d) You deserved to get into trouble  Yes/No
   e) Other (specify) ..................

3. The opinions of your colleagues would:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Not matter at all

4. If your colleagues thought you were not very good at your job, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

5. If your colleagues thought you were a useless person, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

6. If your colleagues thought you were always making foul-ups, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

7. If your colleagues thought you deserved to get into trouble, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all
D. You have been working for the same small firm for four years. You have just been told that you are to be promoted because your work has been of such a high standard.

1. How likely is it your colleagues will think highly of you.
   a) Certainly think highly of me
   b) Very likely think highly of me
   c) Quite likely think highly of me
   d) Not at all likely to think highly of me

2. Your colleagues would think:
   a) You are very good at your job and deserve to get on  Yes/No
   b) You are very clever  Yes/No
   c) You have worked hard for it  Yes/No
   d) You are a successful person  Yes/No
   e) Other (specify)  .........................

3. The opinions of your colleagues:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don’t matter at all

4. If your colleagues thought you were good at your job and deserved to get on, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all

5. If your colleagues thought you were very clever, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all

6. If your colleagues thought you had worked hard for it, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all

7. If your colleagues thought you were a successful person, this would:
   a) Be very important
   b) Be quite important
   c) Concern you a little
   d) Not matter at all
E. You have gone out for a meal with a group of friends, and during the meal you suddenly feel very ill, and you have to rush out to the toilet to be sick.

1. How likely is it that your friends will think badly of you:
   a) Certainly think badly of me
   b) Very likely think badly of me
   c) Quite likely think badly of me
   d) Not at all likely to think badly of me

2. Your friends would think:
   a) You have made a complete fool of yourself   Yes/No
   b) You must have drunk too much   Yes/No
   c) They won't go out with you again   Yes/No
   d) You are an embarrassment to go out with   Yes/No
   e) Other (specify) .........................

3. The opinions of the friends that are with you:
   a) Matter a lot
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

4. If your friends thought you had made a complete fool of yourself, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

5. If your friends thought you had drunk too much, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

6. If your friends thought they wouldn't go out with you again, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

7. If your friends thought you were an embarrassment to go out with, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all
F. You were asked to give a talk to a group of about twenty people, which you have just finished. It seemed to go very well, people were interested and asked questions. At the end you are thanked for giving a very interesting talk.

1. How likely is it that people in the audience will think highly of you:
   a) Certainly think highly of me
   b) Very likely think highly of me
   c) Quite likely think highly of me
   d) Not at all likely to think highly of me

2. People in the audience would think:
   a) You are a very accomplished speaker Yes/No
   b) You are a confident person Yes/No
c) They would like to hear you talk again Yes/No
d) The talk was really interesting Yes/No
e) Other (specify) ............................... 

3. The opinions of the audience:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

4. If the audience thought that you are an accomplished speaker, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all

5. If the audience thought you were a confident person, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all

6. If the audience thought they would like to hear you again, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all

7. If the audience thought the talk was really interesting, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all
G. You have been for an interview for a job which you wanted very much but you were turned down. When you go home your family are waiting to hear how you got on.

1. How likely is it that your family will think badly of you:
   a) Certainly think badly of me
   b) Very likely think badly of me
   c) Quite likely think badly of me
   d) Not at all likely to think badly of me

2. Your family will think:
   a) You'll never get a job
   b) There must be something wrong with you
   c) You fail at everything you do
   d) You can't be much good at your work
   e) Other (Specify) ...................................

3. The opinions of your family:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

4. If your family thought that you'll never get a job, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

5. If your family thought there must be something wrong with your this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

6. If your family thought you failed at everything you do, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all

7. If your family thought you were not much good at your work, this would:
   a) Be awful
   b) Be upsetting
   c) Concern you a little
   d) Not matter at all
H. You took an important exam a month ago, and you have just been told that you passed. When you get home your family are waiting to hear how you got on.

1. How likely is it that your family will think highly of you:
   a) Certainly think highly of me
   b) Very likely think highly of me
   c) Quite likely think highly of me
   d) Not at all likely to think badly of me

2. Your family will think:
   a) You were very clever to have passed
   b) You are a successful person
   c) You always seem to do well
   d) They expected you to pass
   e) Other (specify)

3. The opinions of your family:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

4. If your family thought you were very clever to pass, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all

5. If your family thought you were a successful person, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all

6. If your family thought you always seemed to do well, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all

7. If your family expected you to pass, this would:
   a) Be very important
   b) Be quite important
   c) Be slightly important
   d) Not matter at all
# APPENDIX 2

**Categories of Referral Problems**

<table>
<thead>
<tr>
<th>CODE</th>
<th>MAIN HEADING</th>
<th>SUB HEADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 - 9</td>
<td>Anti Social Behaviour</td>
<td>00 Stealing 01 Gambling 02 Aggression 09 Other</td>
</tr>
<tr>
<td>10 - 19</td>
<td>Assessment</td>
<td>10 Personality 11 Intellectual 12 Neurological 13 Dementia 14 Differential Diagnosis 15 Behavioural Programme for I.P./D.P.</td>
</tr>
<tr>
<td>20 - 29</td>
<td>Anxiety States</td>
<td>20 Non specific anxiety without panic attacks 21 Non specific anxiety with panic attacks 22 Illness anxiety 23 Social anxiety 24 Existential angst 29 Other</td>
</tr>
<tr>
<td>30 - 39</td>
<td>Dependency</td>
<td>30 Alcohol 31 Narcotics 32 Tranquilisers, sedatives 33 Smoking 39 Other</td>
</tr>
<tr>
<td>40 - 49</td>
<td>Depression</td>
<td>40 Reactive depression (unspecific) 41 Postnatal depression 42 Following bereavement</td>
</tr>
<tr>
<td>50 - 59</td>
<td>Eating Disorders</td>
<td>50 Obesity 51 Anorexia Nervosa 52 Bulimia Nervosa 59 Other</td>
</tr>
<tr>
<td>60 - 69</td>
<td>Habit Disorders</td>
<td>60 Hair pulling 61 Nail biting 62 Enuresis 63 Encopresis</td>
</tr>
<tr>
<td>Code</td>
<td>Category</td>
<td>Subcategories</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>70-79</td>
<td>Language Disorders</td>
<td>70 Stuttering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>71 Functional aphonia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72 Dyslexia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>73 Dysphasia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>79 Other</td>
</tr>
<tr>
<td>80-89</td>
<td>Medical Psychology</td>
<td>80 Pain management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>81 AIDS Counselling</td>
</tr>
<tr>
<td>90-99</td>
<td>Neuro Muscular Problems</td>
<td>90 Tic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>91 Torticollis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>92 Giles de la Tourette</td>
</tr>
<tr>
<td></td>
<td></td>
<td>93 Dysgraphia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>99 Other</td>
</tr>
<tr>
<td>100-109</td>
<td>Obsessional States</td>
<td>100 Obsessional rituals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101 Obsessional ruminations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>102 Obsessional avoidance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>109 Other</td>
</tr>
<tr>
<td>110-119</td>
<td>Personality problems</td>
<td>110 Chronic non-coping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>111 Hypochondriacal personality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>112 Identity confusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>113 Borderline personality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>114 Dependent personality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>115 Immature personality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>119 Other</td>
</tr>
<tr>
<td>120-129</td>
<td>Phobic states</td>
<td>120 Agoraphobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>121 Social phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>122 Animal phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>123 Insect phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>124 Public eating phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>129 Other</td>
</tr>
<tr>
<td>130-139</td>
<td>Psychosomatic</td>
<td>130 Tension headache</td>
</tr>
<tr>
<td></td>
<td></td>
<td>131 Migraine headache</td>
</tr>
<tr>
<td></td>
<td></td>
<td>132 Mixed headache</td>
</tr>
<tr>
<td></td>
<td></td>
<td>133 Insomnia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>134 Pain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>135 Asthma</td>
</tr>
<tr>
<td></td>
<td></td>
<td>136 Abdominal complaints</td>
</tr>
<tr>
<td></td>
<td></td>
<td>139 Other</td>
</tr>
<tr>
<td>140-149</td>
<td>Relationship problems</td>
<td>140 Marital</td>
</tr>
<tr>
<td></td>
<td></td>
<td>141 Family</td>
</tr>
<tr>
<td></td>
<td></td>
<td>142 Social</td>
</tr>
<tr>
<td></td>
<td></td>
<td>149 Other</td>
</tr>
<tr>
<td>Category</td>
<td>Codes</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Sex problems</td>
<td>150-159</td>
<td></td>
</tr>
<tr>
<td>Homosexuality</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Paedophilia</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Exhibitionism</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>Fetishism</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>Sexual identity confusion</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>159</td>
<td></td>
</tr>
<tr>
<td>Sexual Dysfunctions</td>
<td>160-169</td>
<td></td>
</tr>
<tr>
<td>Impotence</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>Premature ejaculation</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>Ejaculation incompetence</td>
<td>162</td>
<td></td>
</tr>
<tr>
<td>Frigidity</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>Anorgasmia</td>
<td>164</td>
<td></td>
</tr>
<tr>
<td>Vaginismus</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>Loss of libido</td>
<td>166</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Social skills deficit</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>Social skills inhibition</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>Social skills excesses</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>Emotional crises</td>
<td>180-189</td>
<td></td>
</tr>
<tr>
<td>Reactive to life events (unspec.)</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>Reactive to relationship split</td>
<td>181</td>
<td></td>
</tr>
<tr>
<td>Reactive to bereavement</td>
<td>182</td>
<td></td>
</tr>
<tr>
<td>Midlife crises</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>Physical trauma and illness</td>
<td>184</td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>Loss of job</td>
<td>186</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>189</td>
<td></td>
</tr>
<tr>
<td>Uncodable</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>
On the following pages you will find a number of situations briefly described. Please read the passage carefully and try to imagine yourself in each situation as vividly as possible. Then choose the statements that you think would describe the way you would respond if you were really in that situation.

To show which alternative you have chosen put a ring around your choice.

For questions 1 and 6, choose one of the answers a) to d).

For the other questions answer Yes or No to each question.

Remember to give the answer that is true for you. There are no right or wrong answers.

Please make sure you answer each question.
A. You are walking along a busy street in the centre of town when you trip up and fall over, dropping a bag of groceries all over the floor.

**IN THIS SITUATION**

1. How likely is it that people will think badly of you?
   
   (Choose one answer)
   
   a) Very likely think badly of me
   b) Quite likely think badly of me
   c) Might think badly of me
   d) Not at all likely to think badly of me

2. Passers-by will think:
   
   2. You must be drunk
      
      Yes/No
   3. You are a stupid person
      
      Yes/No
   4. You have made a fool of yourself
      
      Yes/No
   5. You are clumsy
      
      Yes/No

6. The opinions of the people that saw you fall:
   
   (Choose one answer)
   
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

7. If passers-by though you were drunk, this would concern you a lot.
   
   Yes/No

8. If passers-by thought you were a stupid person, this would concern you a lot.
   
   Yes/No

9. If passers-by though you had made a fool of yourself, this would concern you a lot.
   
   Yes/No

10. If passers-by thought you were clumsy, this would concern you a lot.
    
    Yes/No
B. While walking through town one day you are just about to cross the road when a small child runs straight out into the road near you. The child stops and screams as a car comes straight towards her, you quickly dash out and grab the child out of the way just in time, as the car swerves and screeches to a halt.

IN THIS SITUATION

1. How likely is it that the people there will think highly of you?

   (Choose one answer)
   a) Very likely think highly of me
   b) Quite likely think highly of me
   c) Might think highly of me
   d) Not at all likely to think highly of me

The people would think: (answer each question)

2. You are a brave person Yes/No
3. You are very quick witted  Yes/No
4. You saved the child's life Yes/No
5. You have very quick reactions Yes/No

6. The opinions of the people who saw what happened:

   (Choose one answer)
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

   (answer each question)

7. If the people thought you were a brave person, this would please you a lot. Yes/No
8. If the people thought you were very quick witted this would please you a lot. Yes/No
9. If the people thought you saved the child's life this would please you a lot. Yes/No
10. If the people thought you had very quick reactions, this would please you a lot. Yes/No
C. You have gone to your local shop to buy a few groceries and a bottle of milk. While waiting to pay, you chat to other people in the queue that you know who live near you. You then accidentally drop the bottle which shatters and milk splashes over everything.

IN THIS SITUATION

1. How likely is it that the people in the shop will think badly of you?
   a) Very likely to think badly of me
   b) Quite likely think badly of me
   c) Might think badly of me
   d) Not at all likely to think badly of me

The people would think:

2. You are a careless person
   Yes/No

3. You must be stupid
   Yes/No

4. You are always doing things wrong
   Yes/No

5. They won’t get near you again
   Yes/No

6. The opinions of people you know who live near you:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don’t matter at all

7. If the people thought you a careless person, this would concern you a lot.
   Yes/No

8. If the people thought you must be stupid, this would concern you a lot.
   Yes/No

9. If the people thought you were always doing things wrong, this would concern you a lot.
   Yes/No

10. If the people felt they wouldn’t get near you again, this would concern you a lot.
    Yes/No
D. You decided to have a party for your neighbours and people who live near you to try and get to know them better. When you hold the party everyone turns up, they enjoy the food and drink you have provided and all seem to have a good time.

**IN THIS SITUATION**

1. How likely is it that your neighbours will think highly of you?
   
a) Very likely think highly of me  
b) Quite likely think highly of me  
c) Might think highly of me  
d) Not at all likely to think highly of me

Your neighbours would think:

2. It was really good of you to have the party  
   Yes/No

3. They must invite you over soon  
   Yes/No

4. You know how to make a good party  
   Yes/No

5. You are a generous person  
   Yes/No

6. The opinions of your neighbours:
   
a) Matter a lot to you  
b) Concern you considerably  
c) Concern you a little  
d) Don’t matter at all

7. If the neighbours thought it was good of you to have the party, this would please you a lot.  
   Yes/No

8. If the neighbours felt they must invite you over soon, this would please you a lot.  
   Yes/No

9. If the neighbours thought you knew how to make a good party, this would please you a lot.  
   Yes/No

10. If the neighbours thought you were a generous person, this would please you a lot.  
    Yes/No
E. You work in a small firm, where you have been for two years. Recently your boss came up to you when you were talking to your colleagues, and asked you to have a word with him as he was not happy with some of your work.

**IN THIS SITUATION**

1. How likely is it that your colleagues will think badly of you?
   - a) Very likely think badly of me
   - b) Quite likely think badly of me
   - c) Might think badly of me
   - d) Not at all likely to think badly of me

   *Your colleagues would think:*

   2. You are not very good at your job
   - Yes/No

   3. You are a useless person
   - Yes/No

   4. You are always making foul-ups
   - Yes/No

   5. You deserved to get into trouble
   - Yes/No

   6. The opinions of your colleagues:
      - a) Matter a lot
      - b) Concern you considerably
      - c) Concern you a little
      - d) Don't matter at all

   7. If your colleagues thought you were not very good at your job, this would concern you a lot.
      - Yes/No

   8. If your colleagues thought you were a useless person, this would concern you a lot.
      - Yes/No

   9. If your colleagues thought you were always making foul-ups, this would concern you a lot.
      - Yes/No

   10. If your colleagues thought you deserved to get into trouble, this would concern you a lot.
      - Yes/No
F. You have been working for the same small firm for four years. You have just been told that you are to be promoted because your work has been of such a high standard.

**IN THIS SITUATION**

1. How likely is it that your colleagues will think highly of you?
   a) Very likely think highly of me
   b) Quite likely think highly of me
   c) Might think highly of me
   d) Not at all likely to think highly of me

**Your colleagues would think:**

2. You are very good at your job and deserve to get on
   Yes/No
3. You are very clever
   Yes/No
4. You have worked hard for it
   Yes/No
5. You are a successful person
   Yes/No

6. The opinions of your colleagues:
   a) Matter a lot
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

7. If your colleagues thought you were good at your job and deserved to get on, this would please you a lot.
   Yes/No
8. If your colleagues thought you were very clever, this would please you a lot.
   Yes/No
9. If your colleagues thought you had worked hard for it, this would please you a lot.
   Yes/No
10. If your colleagues thought you were a successful person, this would please you a lot.
    Yes/No
6. You have gone out for a meal with a group of friends and during the meal you suddenly feel very ill, and you have to rush out to the toilet to be sick.

**IN THIS SITUATION**

1. How likely is it that your friends will think badly of you?
   a) Very likely think badly of me
   b) Quite likely think badly of me
   c) Might think badly of me
   d) Not at all likely to think badly of me.

Your friends would think:

2. You have made a complete fool of yourself Yes/No
3. You must have drunk too much Yes/No
4. They won't go out with you again Yes/No
5. You are an embarrassment to go out with Yes/No

6. The opinions of your friends:
   a) Matter a lot
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

7. If your friends thought you had made a complete fool of yourself, this would concern you a lot. Yes/No
8. If your friends thought you had drunk too much, this would concern you a lot. Yes/No
9. If your friends thought they wouldn't go out with you again, this would concern you a lot. Yes/No
10. If your friends thought you were an embarrassment to go out with, this would concern you a lot. Yes/No
H. You have gone out for the night with a group of friends, and during the evening one of them comments how smart on are looking, another of them says that they had been thinking that also.

IN THIS SITUATION

1. How likely is it that your friends will think highly of you?
   a) Very likely think highly of me
   b) Quite likely think highly of me
   c) Might think highly of me
   d) Not at all likely to think highly of me

Your friends were thinking:

2. You were looking very good that night Yes/No
3. They were pleased to be out with you Yes/No
4. You are always smartly dressed Yes/No
5. They liked your company Yes/No

6. The opinions of your friends:
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

7. If your friends thought you were looking good that night, this would please you a lot. Yes/No
8. If your friends were pleased to be out with you, this would please you a lot. Yes/No
9. If your friends thought you were always smartly dressed, this would please you a lot. Yes/No
10. If your friends liked your company, this would please you a lot. Yes/No
I. You have been for an interview for a job which you wanted very much, but you were turned down. When you go home your family are waiting to hear how you got on:

IN THIS SITUATION

1. How likely is it that your family will think badly of you?

(Choose one answer)
   a) Very likely think badly of me
   b) Quite likely think badly of me
   c) Might think badly of me
   d) Not at all likely to think badly of me

Your family would think  (answer each question)

2. You will never get a job  Yes/No
3. There must be something wrong with you  Yes/No
4. You fail at everything you do  Yes/No
5. You cannot be much good at your work  Yes/No

6. The opinions of your family:

(Choose one answer)
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don't matter at all

7. If your family thought that you'll never get a job, this would concern you a lot/  Yes/No
8. If your family thought there must be something wrong with you, this would concern you a lot.  Yes/No
9. If your family thought you failed at everything you do, this would concern you a lot.  Yes/No
10. If your family thought you were not much good at your work, this would concern you a lot.  Yes/No
J. You took an exam a month ago, and you have just been told that you passed. When you get home your family are waiting to hear how you got on.

IN THIS SITUATION

1. How likely is it that your family will think highly of you?
(Circle one answer)
   a) Very likely think highly of me
   b) Quite likely think highly of me
   c) Might think highly of me
   d) Not at all likely to think highly of me

Your family will think: (answer each question)

2. You were very clever to have passed
   Yes/No
3. You are a successful person
   Yes/No
4. You always seem to do well
   Yes/No
5. They are proud of you
   Yes/No

6. The opinions of your family:
(Choose one answer)
   a) Matter a lot to you
   b) Concern you considerably
   c) Concern you a little
   d) Don’t matter at all

7. If your family thought you were very clever to pass, this would please you a lot. Yes/No
8. If your family thought you were a successful person, this would please you a lot. Yes/No
9. If your family thought you always seemed to do well, this would please you a lot. Yes/No
10. If your family were proud of you, this would please you a lot. Yes/No
APPENDIX 4

VIEWS-OF-OTHERS SCALE

How highly or otherwise do the following groups of people think of you on average?

Please circle your answer

<table>
<thead>
<tr>
<th>1. Close family</th>
<th>Very</th>
<th>Fairly</th>
<th>Somewhat</th>
<th>Neither</th>
<th>Quite</th>
<th>Fairly</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Badly</td>
<td>Badly</td>
<td>Badly</td>
<td>Neither</td>
<td>Quite</td>
<td>Fairly</td>
<td>Very</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Friends</th>
<th>Very</th>
<th>Fairly</th>
<th>Somewhat</th>
<th>Neither</th>
<th>Quite</th>
<th>Fairly</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Badly</td>
<td>Badly</td>
<td>Badly</td>
<td>Neither</td>
<td>Quite</td>
<td>Fairly</td>
<td>Very</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Colleagues (if you work)</th>
<th>Very</th>
<th>Fairly</th>
<th>Somewhat</th>
<th>Neither</th>
<th>Quite</th>
<th>Fairly</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Badly</td>
<td>Badly</td>
<td>Badly</td>
<td>Neither</td>
<td>Quite</td>
<td>Fairly</td>
<td>Very</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Acquaintances (eg neighbours)</th>
<th>Very</th>
<th>Fairly</th>
<th>Somewhat</th>
<th>Neither</th>
<th>Quite</th>
<th>Fairly</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Badly</td>
<td>Badly</td>
<td>Badly</td>
<td>Neither</td>
<td>Quite</td>
<td>Fairly</td>
<td>Very</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Strangers</th>
<th>Very</th>
<th>Fairly</th>
<th>Somewhat</th>
<th>Neither</th>
<th>Quite</th>
<th>Fairly</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Badly</td>
<td>Badly</td>
<td>Badly</td>
<td>Neither</td>
<td>Quite</td>
<td>Fairly</td>
<td>Very</td>
</tr>
</tbody>
</table>

198
APPENDIX 5

DSM-III-R DIAGNOSTIC CRITERIA FOR DIAGNOSES USED IN STUDY 3

Adjustment Disorder (General)

A. A maladaptive reaction to an identifiable psychosocial stressor, that occurs within three months of the onset of the stressor.

B. The maladaptive nature of the reaction is indicated by either of the following:
   1. impairment of social or occupational functioning
   2. symptoms that are in excess of a normal and expectable reaction to the stressor

C. The disturbance is not merely one instance of a pattern of overreaction to stress or an exacerbation of another mental disorder.

D. It is assumed that the disturbance will eventually remit after the stressor ceases or, if the stressor persists when a new level of adaptation is achieved.

E. The disturbance does not meet the criteria for any of the specific disorders or for Uncomplicated Bereavement.

Adjustment Disorder with Depressed Mood.

The predominant manifestation involves such symptoms as depressed mood, tearfulness, and hopelessness.

Adjustment Disorder with Anxious Mood.

The predominant manifestation involves such symptoms as nervousness, worry, and jitteriness.

Dysthymic Disorder

A. During the past two years the person has been bothered most or all of the time by symptoms characteristic of the depressive syndrome but that are not of sufficient severity and duration to meet the criteria for a major depressive episode.

B. The manifestations of the depressive syndrome may be relatively persistent or separated by periods of normal mood lasting a few days to a few weeks, but no more than a few months at a time.

C. During the depressive periods there is either prominent depressed mood (e.g., sad, blue, down in the dumps, low) or a marked loss of interest or pleasure in all, or almost all, usual activities/pastimes.

D. During the depressive periods at least three of the following symptoms are present:
   1. insomnia or hypersomnia
   2. low energy level or chronic tiredness
   3. feelings of inadequacy, loss of self esteem, or self-deprecation
   4. decreased effectiveness or productivity at school, work or home
5. decreased attention, concentration or ability to think clearly
6. social withdrawal
7. loss of interest in or enjoyment of pleasurable activities
8. irritable or excessive anger
9. inability to respond with apparent pleasure to praise or rewards
10. less active or talkative than usual, or feels slowed down or restless
11. pessimistic attitude toward the future, brooding about past events, or feeling sorry for self
12. tearful or crying
13. recurrent thoughts of death or suicide

E. Absence of psychotic features such as delusions, hallucinations or incoherence, or loosening of associations.

**Agoraphobia with panic attacks**

A. The individual has a marked fear of and thus avoids being alone or in public places from which escape might be difficult or help not available in case of sudden incapacitation e.g. crowds, tunnels, bridges, public transportation.

B. There is increasing constriction of normal activities until the fears or avoidance behaviour dominate the individuals life.

C. A history of panic attacks (which may or may not be currently present)

**Agoraphobia without panic attacks**

A and B above.

**Social Phobia**

A. A persistent, irrational fear of, and compelling desire to avoid, a situation in which the individual is exposed to possible scrutiny by others and fears that he or she may act in a way that will be humiliating or embarrassing.

B. Significant distress because of the disturbance and recognition by the individual that his or her fear is excessive or unreasonable.

**Panic Disorder**

A. At least three panic attacks within a three-week period in circumstances other than during marked physical exertion or in a life-threatening situation. The attacks are not precipitated only by exposure to a circumscribed phobic stimulus.

B. Panic attacks are manifested by discrete periods of apprehension or fear, and at least four of the following symptoms appear during each attack:

1. dyspnea
2. palpitations
3. chest pain or discomfort
4. choking or smothering sensations
5. dizziness, vertigo or unsteady feelings
6. feelings of unreality
7. paresthesias (tingling in hands or feet)
8. hot and cold flashes
9. sweating
10. faintness
11. trembling or shaking
12. fear of dying, going crazy, or doing something uncontrolled during an attack

C. The disorder is not associated with Agoraphobia

Generalised Anxiety Disorder

A. Generalised, persistent anxiety is manifested by symptoms from three of the following four categories:
1. Motor tension: shakiness, jitteriness, jumpiness, tension, muscle aches, fatiguability, inability to relax, eyelid twitch, furrowed brow, strained face, fidgeting, restlessness, easy startle
2. Autonomic hyperactivity: sweating, heart pounding or racing, cold, clammy hands, dry mouth, dizziness, light-headedness, paresthesias, upset stomach, hot or cold spells, frequent urination, diarrhoea, discomfort in the pit of the stomach, lump in the throat, flushing, pallor, high resting pulse and respiration rate
3. Apprehensive expectation: anxiety, worry, fear, rumination, and anticipation of misfortune to self or others
4. Vigilance and scanning: hyperattentiveness resulting in distractibility, difficulty in concentrating, insomnia, feeling "on edge", irritability, impatience

B. The anxious mood has been continuous for at least one month
This questionnaire aims to find out how you think you would react in certain situations.

Please read the passage at the top of each page, and try to imagine yourself in that situation.

What would people around you think of you?

You are given a number of ‘thoughts’ people might have about you. Please rate how likely each ‘thought’ is on a scale of 1 to 7 by circling one of numbers of each line.

Remember to answer all the questions. There are no right or wrong answers. Just answer as you feel.

Many thanks for your help.
A. You are walking along a busy, crowded street in the centre of town with a close friend. You trip up and fall to the ground, spilling your shopping onto the pavement.

**IN THIS SITUATION**

<table>
<thead>
<tr>
<th>Your friend will think ...</th>
<th>Certainly Think</th>
<th>Certainly Will Think</th>
<th>Won’t Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are clumsy</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You must be drunk</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are a stupid person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They wish they weren’t with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You should be more careful</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>People in the street will think...</th>
<th>Certainly Think</th>
<th>Certainly Will Think</th>
<th>Won’t Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are clumsy</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You must be drunk</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are a stupid person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They’re glad they’re not with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You should be more careful</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if your friend really did think ...</th>
<th>Not concern at all</th>
<th>Concern Greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are clumsy</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You must be drunk</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are a stupid person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They wish they weren’t with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You should be more careful</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if people in the street really did think ...</th>
<th>Not concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are clumsy</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You must be drunk</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are a stupid person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They’re glad they are not with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You should be more careful</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

203
B. You work for a small firm, and you and your colleagues are chatting to a group of new recruits on their first day. Your boss comes over and says he isn’t happy with something you did yesterday and wants a word with you in his office.

**IN THIS SITUATION**

<table>
<thead>
<tr>
<th>The recruits will think ...</th>
<th>Certainly</th>
<th>Won’t Think</th>
<th>Certainly</th>
<th>Will Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are not very good at your job</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are a useless person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are always making mistakes</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>They don’t want to work with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You deserve to be sacked</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Your colleagues will think ...</th>
<th>Certainly</th>
<th>Won’t Think</th>
<th>Certainly</th>
<th>Will Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are not very good at your job</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are a useless person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You are always making mistakes</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>They don’t want to work with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You deserve to be sacked</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if the recruits really did think...</th>
<th>Not concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are not very good at your job</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are a useless person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are always making mistakes</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They don’t want to work with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You deserve to be sacked</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if your colleagues really did think...</th>
<th>Not concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are not very good at your job</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are a useless person</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are always making mistakes</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They don’t want to work with you</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You deserve to be sacked</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
C. You have gone out with a few members of your family for a meal in a popular restaurant. During the meal you turn around to talk to the waiter, not realising he was standing close to you, and you knock two plates of food out of his hand which fall and smash on the floor.

**IN THIS SITUATION**

<table>
<thead>
<tr>
<th>Members of your family will think ....</th>
<th>Certainly</th>
<th>Won't</th>
<th>Will</th>
<th>Certainly</th>
<th>Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You must have drunk too much</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>They wish they weren't with you</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You are an embarrassment</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You always let them down</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>They don't want to go out with you</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other people there will think..</th>
<th>Certainly</th>
<th>Won't</th>
<th>Will</th>
<th>Certainly</th>
<th>Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You must have drunk too much</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>They're glad they aren't with you</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You are an embarrassment</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>You let your family down</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>They wouldn't want to go out with you</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if the members of your family really did think ...</th>
<th>Not concern</th>
<th>Concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You must have drunk too much</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>They wish they weren't with you</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>You are an embarrassment</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>You always let them down</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>They don't want to go out with you</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if the other people there really did think ...</th>
<th>Not concern</th>
<th>Concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You must have drunk too much</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>They're glad they aren't with you</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>You let your family down</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>They wouldn't want to go out with you</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
D. You have been for an interview for a job you wanted very much, but you were turned down. You then go to see your family, who are being visited by friends of theirs that you have never met. You have to tell everyone that you didn't get the job.

IN THIS SITUATION

The visitors will think ...

<table>
<thead>
<tr>
<th>Certainly Will</th>
<th>Certainly Won't Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can't be very good at your work</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You will never get a decent job</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You are a failure</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>There must be something wrong with you</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You can't get on with people</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You probably didn't deserve to get it</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

Your family will think...

<table>
<thead>
<tr>
<th>Certainly Will</th>
<th>Certainly Won't Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can't be very good at your work</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You will never get a decent job</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You are a failure</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>There must be something wrong with you</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You can't get on with people</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You probably didn't deserve to get it</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

It would concern you if the visitors really did think ....

<table>
<thead>
<tr>
<th>Not concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can't be very good at your work</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You will never get a decent job</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You are a failure</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>There must be something wrong with you</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You can't get on with people</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You probably didn't deserve to get it</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

It would concern you if your family really did think ... 

<table>
<thead>
<tr>
<th>Not concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can't be very good at your work</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You will never get a decent job</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You are a failure</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>There must be something wrong with you</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You can't get on with people</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You probably didn't deserve to get it</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
E. You have recently started work for a new firm, and you go to the works Christmas Party. When you get there you find you don't know anyone apart from one colleague. You and your colleague are chatting to a small group and you ask one of them how his wife is, as you heard from your colleague she was ill. He looks very upset and tells you she died.

IN THIS SITUATION

Your colleague will think...

<table>
<thead>
<tr>
<th>Certainly Think</th>
<th>Certainly Won't Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have upset the man</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You have embarrassed everyone</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You don't think before you talk</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You are uncaring</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You shouldn't have been invited</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

Others in the group will think...

<table>
<thead>
<tr>
<th>Certainly Think</th>
<th>Certainly Won't Think</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have upset the man</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You have embarrassed everyone</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You don't think before you talk</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You are uncaring</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You shouldn't have been invited</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

It would concern you if your colleague really did think...

<table>
<thead>
<tr>
<th>Certainly</th>
<th>Not concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have upset the man</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have embarrassed everyone</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You don't think before you talk</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are uncaring</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You shouldn't have been invited</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

It would concern you if others in the group really did think...

<table>
<thead>
<tr>
<th>Certainly</th>
<th>Not concern at all</th>
<th>Concern greatly</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have upset the man</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have embarrassed everyone</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You don't think before you talk</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are uncaring</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You shouldn't have been invited</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You look foolish</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
F. You have gone to the supermarket to do your shopping, and have loaded up your trolley with groceries. While queuing at the checkout you talk to a friend standing behind you in the queue, until it is your turn. When you are told the amount due you realise you don’t have enough money and there is no way you can pay.

IN THIS SITUATION

<table>
<thead>
<tr>
<th>Others shoppers will think ...</th>
<th>Certainly</th>
<th>Certainly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Won’t</td>
<td>Will</td>
</tr>
<tr>
<td></td>
<td>Think</td>
<td>Think</td>
</tr>
<tr>
<td>You must have money problems</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are an embarrassment to know</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You must be stupid</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They wish they weren’t there</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You don’t think ahead</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Your friend will think ...</th>
<th>Certainly</th>
<th>Certainly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Won’t</td>
<td>Will</td>
</tr>
<tr>
<td></td>
<td>Think</td>
<td>Think</td>
</tr>
<tr>
<td>You must have money problems</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are an embarrassment to know</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You must be stupid</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They wish they weren’t there</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You don’t think ahead</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if other shoppers really did think ...</th>
<th>Not Concern</th>
<th>Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>at all</td>
<td>greatly</td>
</tr>
<tr>
<td>You must have money problems</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are an embarrassment to know</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You must be stupid</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They wish they weren’t there</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You don’t think ahead</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It would concern you if your friend really did think ...</th>
<th>Not Concern</th>
<th>Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>at all</td>
<td>greatly</td>
</tr>
<tr>
<td>You must have money problems</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You have made a fool of yourself</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You are an embarrassment to know</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You must be stupid</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>They wish they weren’t there</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>You don’t think ahead</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 7

PROGRAM FOR SCORING THE DEQ

The program on the following page is designed to score the 66-item DEQ using the factor score coefficients, means and standard deviations of the female sample or the male sample. The program is written in Fortran IV. The specific control cards are for the WATFIV compiler. With minor modifications the program can be run with various FORTRAN compilers.

The program produces both a printed and punched output record for each subject. The format of the output record is:

(A3,3F8.4,T79,'F1')

Col.Output

1-3Subject identification

4-11Score on Factor I

12-19Score on Factor II

20-27Score on Factor III

79-80F1' - card identification

The following statements are the formats for the input data:

2 FORMAT (3X,3F8.5)

The above format is for the factor score coefficients (66 cards)

4 FORMAT (47X,2F13.3)

The above format is for the mean and standard deviations (66 cards)

6 FORMAT (A3,3X,66F1.0)

This format reads in each subject’s card, allotting columns 1-3 for subject identification code, 3 columns for either blanks or other information ignored by the program and 66 columns for the scores for each of the items. If the item is not answered, leave the column blank; the program prorates for number of completed items (Questionnaires with fewer than 60 completed items should not be used)

The user may want to rewrite any of the three input card formats to adjust for how a particular set of coefficients, means and standard deviations, or data input is punched.
Program

`DIMENSION MEAN (66),SD(66),BETA(3,66),A(66),SCORE(3)
REAL MEAN
ZS COR(Q,R,S)=(Q-R)/S
1. READ(5,2)((BETA(I,J),I=1,3),J=1,66)
2. FORMAT(3X,3F8.5)
   DO 3 I=1,66
3. READ(5,4)MEAN(I),SD(I)
4. FORMAT (41X,2F13.3)
5. READ (5,6,END=99)NAME,(A(I),I=1,66
6. FORMAT (A3,3X,66F1.0)
   B=0
   DO 7 I=1,3
7. SCORE (I)=0
   DO 8 I=1,66
      IF(A(I).EQ.0.)GO TO 8
      B=B+1
   DO 8 J=1,3
      SCORE (J)= SCORE(J) + (BETA(J,I)*ZSCOR(A(I),MEAN(I),SD(I))
8. CONTINUE
   DO 9 I=1,3
9. SCORE (I)=(66/B)*SCORE(I)
   WRITE (7,10)NAME,(SCORE (!),!=1,3)
10. FORMAT(A3,3F8.4,T79,'F1')
   WRITE(6,11)NAME,(SCORE(I),I=1,3)
11. FORMAT(1H ,A3,3F8.4)
    GO TO 2
99 CONTINUE
STOP
END`

$DATA

After the $DATA card, place the 66 cards with the factor score coefficients (3 per card),
the 66 cards with mean and standard deviation (1 of each per card) and then the subject’s
data cards. Factor Coefficient cards and mean and standard deviation cards are always in
order from item 1 to item 66.

After the last subject card, the end-of-file signal information appears.
APPENDIX 8

COGNITIVE THERAPY MANUAL

General cognitive therapy techniques, such as identifying all 'irrational' beliefs and countering them, cannot be used, as these would influence both groups of cognitions, and it is intended that the therapy should be as specific as possible to the cognitions targeted.

The A-B-C model will be taught as a necessary precursor to focusing on thoughts and 'beliefs'. RET terminology will be used, although the techniques will be broader than those typically used by RET therapists. Many of the techniques are taken from "Handbook of Cognitive Therapy Techniques" (McMullin, 1986).

If the client suggests working on other beliefs than those targeted then I propose to say that we will come to those beliefs later, but for now I want to concentrate on ....etc.

A. For cognitions over-estimating the likelihood of negative evaluation by different social groups

Typical cognitions:
'People are thinking badly of me'
'If I look anxious people will think badly of me'
'People will think I'm mad/stupid/drunk/pathetic'
'They won't want to know me anymore'
'They'll all be talking about me'

Therapeutic procedure

Session 1
1. Discuss A-B-C Model.
2. Focus on the B's in the group above.
3. Get the client to write down as many B's in this category as possible, with the help of directed questions.
4. Ask the client to summarise these beliefs in order to emphasise the overestimation that others will be critical.
5. Explain concepts of:
   irrationality of some beliefs
   challenging beliefs
   producing counters
   rehearsing counters prior to using in real situations.
6. Challenge the beliefs identified - how is it justified, what evidence is there? Bring out exaggerated probability through:
   overgeneralisation (a few may be critical but not all)
   egocentric perspective(others not aware of client)
   misattribution (others likely to attribute to external, not internal to client, causes)
   Challenge on the basis of: rationality, utility, underlying value system, internal inconsistencies in clients views.
7. Homework: Give client the list of B's and ask to produce 2 rational counters to each.
Session 2
8. Review counters to the IB’s from homework, focusing on probability.
   Add improved counters - get client to record them during session.
   Get counters from: discussion of irrational beliefs
   - identify cognitions from episodes when coped well
     in past, noting any more that occur to client
     between sessions.
9. Cue Cards: Write triggering situation on one side and counters on other. Homework to learn them, visualise situation, then imagine thinking the counters. Do this several times a day.
10. Make the counters forceful: use 'melted wax theory' for rationale say aloud with intensity and energy (model first).
12. Homework: Practice with cue cards, and use counters 'in vivo'.

Session 3
13. Rehearse use of the counters in the session by roleplaying an argument.
14. Identify critical experiences that might have contributed to the overestimation of negative regard by others, particularly distant others. Reinterpret these events in a more rational way.
15. Homework: Use counters in vivo.

NB1 I considered making a tape of the counters, as they would be used in phobic situations, to be listened to as a homework task, but I haven't included this as it has elements of imaginal desensitisation and I would like to stick to relatively 'pure' cognitive techniques.

NB2 Some techniques, such as reversed roleplaying, where client counsels therapist, risk straying from the target cognitions, so I have not included them.

B. For cognitions emphasising the importance of others' evaluations of the subject.

Typical cognitions:
'It's terrible if people think badly of me'
'If people think badly of me then I'm no good'
'If people criticise me then I must be worthless,
'Everyone must approve of me or I'm worthless'
'It's dreadful if anyone thinks badly of me'

Therapeutic procedure

Session 1
1. Explain that moving on to a second group of B’s that produce anxiety.
2. Focus on the B’s from the clients experiences of panic and anxiety.
3. Get the client to write down as many B’s in this category as possible, with the help of directed questions.
4. Ask the client to summarise these beliefs, in order to emphasise the overestimation
that others will be critical.
5. Challenge the beliefs identified - how is it justified, what evidence is there. Bring out overconcern with criticism through:
   failure to differentiate close and distant others
   how does client judge others worth?
   reviewing criteria for determining a person’s worth.
6. Challenge on the basis of: rationality, utility, underlying value system, internal inconsistencies in clients views.
7. Homework: Give client the list of B’s and ask to produce 2 rational counters to each.

Session 2
8. Review counters to the IB’s from homework, focusing on focusing on overconcern with others views. Add improved counters - get client to record them during session.
   Get counters from:
   discussion of irrational beliefs
   identify cognitions from episodes when coped well
   in past noting any more that occur to client between sessions.
9. Cue cards: If triggering situation same as for previous group of B’s then add new counters to those cue cards: otherwise write new cards as before. Homework to learn the new counters, visual situation then imagine thinking the counters. Do this several times a day.
10. Make the counters forceful.
    say aloud with intensity and energy (model first)
    imagine as a ‘fight’ with the old thoughts.
12. Homework: Practice with cue cards, and use all (from A and B) counters ‘in vivo’.

Session 3
13. Rehearse use of the counters in the session by roleplaying an argument between the rational and irrational thoughts, getting client to take rational view.
14. Identify critical experiences that might have contributed to the overconcern about negative regard by others, particularly distant others. Re-interpret these events in a more rational way.
15. Homework: Use all counters in vivo.

N.B. For the second Subject, phases A and B are reversed with appropriate changes (ie teaching of concepts still comes in the first block).
N.B.2. In phase B the cognitions from phase A continue to be worked on, but the main emphasis is on the phase B cognitions, i.e. it is a multiple baseline design.
APPENDIX 9

DAILY RECORD SHEET

<table>
<thead>
<tr>
<th>Situation</th>
<th>Panic (1-10)</th>
<th>Thoughts before and during panic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OTHER ANXIETY DURING DAY (ie non-panic)

<table>
<thead>
<tr>
<th>Situation</th>
<th>Severity (1-10)</th>
<th>Thoughts while anxious</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Please rate the following scales for when your panic or anxiety was at its worst today. If no panic or anxiety during the day then leave scales below blank)

When you felt panic or anxiety, did you believe that other people were thinking badly of you, or would soon be?

Definitely did not  | Certainly did
0 | 1 | 2 | 3 | 4 | 5 | 6

When you felt panic or anxiety, did it concern you that other people might be thinking badly of you?

No concern at all  | Worry a lot
0 | 1 | 2 | 3 | 4 | 5 | 6

214


Erlbaum, New York.


Clinical Psychology, 56, 2, 251-260.


of Experimental Psychology, 43, 349-356.


SPSS Inc. (1975), 444 North Michigan Avenue, Chicago, IL 60611, USA.


