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The Impact of Self-Focused Attention on Social Anxiety

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Thesis Abstract

Cognitive models of social phobia, propose that on entering a social situation individuals with social phobia become self-focused and use internal processing to generate a negative impression of their public self (Clark & Wells, 1995; Rapee & Heimberg, 1997). This impression takes the form of a felt sense or a visual image, often seen from an observer perspective. The impression of the public self is used to infer self-image and as it is usually distorted increases anxiety and impacts on evaluation of performance. Research supports the contention that self-focused attention has a negative impact on thinking, anxiety and evaluation of performance and that socially anxious individuals experience negative self-images, seen from an observer perspective, particularly in high anxiety producing social situations. The current study tested the effects of self-focused attention on perspective taking, mental representations of the self, anxiety, shame, and evaluation of performance, with high and low socially anxious individuals in a social and a non-social task. The results indicate that high socially anxious participants reported more negative images and evaluated some aspects of their performance worse than low socially anxious participants in the social task; however there were no differences in perspective taking. All participants spent a greater proportion of time in the observer perspective, reported more anxiety and shame and underrated their performance in the social task. Results partially support the cognitive models hypotheses; however it was demonstrated that for some variables self-focused attention has a causal effect in social anxiety irrespective of anxiety status.

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Literature Review

The Impact of Self-Focused Attention on Social Anxiety: A review of theory and evidence

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Literature Review

The impact of self-focused attention in social anxiety: A review of theory and evidence

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The Impact of Self-Focused Attention on social anxiety: A review of theory and evidence

Abstract

Cognitive models of social phobia, propose that on entering a social situation individuals with social phobia become self-focused and use internal processing to generate an impression of their public self (Clark & Wells, 1995; Rapee & Heimberg, 1997). This impression takes the form of a felt sense, or a visual image, often seen from an observer perspective. This review considers the role of self-focused attention in social phobia; describes the cognitive models of social phobia, and theories of self-focused attention derived from social psychology; examines the empirical evidence exploring the causal role of self-focused attention and the role of the observer perspective; considers the therapeutic effects of changing self-focused attention in treatment and concludes with discussing directions for future research.

Keywords: Social Phobia; Social Anxiety; Self-Focused Attention; Observer Perspective.

Overview

Self-focused attention (SFA) describes a tendency to be self-reflective (Carver & Scheier, 2000). The role of SFA has been documented in psychopathological conditions including alcohol abuse, anxiety, schizophrenia and depression. Ingram (1990) proposed that excessive SFA described as self-absorption plays an important role in psychopathology. Ingram (1990) argued that the process of SFA occurs across disorders however the content of self-absorption differentiates disorders. Given that the content of SFA rather than the process is important in determining the specific negative affect associated with psychopathological disorders, understanding the interaction between the process and content would aid our conceptualisation of a number of disorders. Cognitive models of social phobia propose that SFA plays a crucial role in maintaining social anxiety (Clark & Wells, 1995; Rapee & Heimberg, 1997). These models suggest that on entering a social situation individuals with social phobia become self-focused and use internal processing to generate an impression of their public self. This impression can take the form of a mental representation of the self as seen by the audience (Rapee & Heimberg, 1997) and a felt sense or a visual image seen from the perspective of observer (Clark & Wells, 1995). This review will consider the role of SFA in social phobia; beginning with a definition of social phobia and current prevalence rates. This will be followed by a description of the cognitive models of social phobia, focusing particularly on the maintaining role of SFA. Next, theoretical models of SFA derived from social psychology will be outlined and their relevance to social phobia will be described. The review will then turn its attention firstly to, the empirical evidence that explores the causal role of SFA in social phobia and secondly, to the empirical evidence investigating

the role of the observer perspective. This will be followed by considering the therapeutic effects of changing SFA in treatment. The final section of the review will summarise research findings and discuss directions for future research.

Social Phobia

Social phobia is a common and disabling disorder (Kessler, McGonagle, Shanyang, Nelson, Hughes, Eshleman, et al., 1994). Despite this social phobia received relatively little research interest until the mid 1980's, partly because it was not an officially defined diagnostic category until the publication of DSM-III (American Psychiatric Association (APA), 1980). Whether social phobia is a distinct disorder or shares similar components with other disorders such as avoidant personality disorder still remains under debate (Turner, Beidel & Townsley, 1992). Many theorists describe a relationship between social phobia, shyness, and avoidant personality disorder (Brown, Heimberg & Juster, 1995; Heimberg, 1996; Rapee, 1995). These theorists take the position that social phobia and avoidant personality disorder are not independent disease entities or qualitatively distinct disorders. Rather they exist on a continuum from low to extreme degrees of social evaluative concern, with shyness at the lower to middle range of the continuum, social phobia at the middle to upper end of the continuum and avoidant personality disorder at the extreme end of the continuum (Rapee & Heimberg, 1997). The general consensus is that the disorders may not differ qualitatively, however the difference lies in the severity and functional impairment experienced (Heimberg, Holt, Schneier, Spitzer & Liebowitz, 1993).

Definition

DSM-IV defines social phobia as "a marked and persistent fear of one or more social or performance situation in which the person is exposed to unfamiliar people or to possible scrutiny by others" (APA), 1994, p. 416). Individuals with social phobia fear that they will behave in an embarrassing or socially unacceptable manner, which will lead to disastrous consequences such as humiliation or rejection. Social phobia is further divided into two distinct subtypes - generalised and specific. Generalised social phobia refers to fears across a wide range of social situations and is usually more disabling than specific social phobia. Specific social phobia refers to fears of specific social situations. Individuals with specific social phobia experience impairment in the feared social situations, however they are able to function in other social situations.

Prevalence

Establishing prevalence rates for social phobia has proved difficult largely due to changes in diagnostic criteria. Estimates based on DSM-III criteria are considerably lower than more recent estimations based on DSM-IV (Furmark, 2002). Social phobia appears to be a relatively common condition affecting between 7% and 13% of individuals in Western societies across their lifetimes (Furmark, 2002). Epidemiological studies reveal a greater proportion of females meeting criteria for social phobia than males; with 9.5% for females and 4.9% for males (Wittchen, Stein & Kessler, 1999).

The onset of social phobia is generally in the early to mid teens. Studies have shown that the majority of individuals with social phobia report onset before 18 years with a mean age of onset from 10 to 13 years (Nelson et al., 2000; Otto et al., 2001). The

incidence of social phobia beginning in adulthood is low (4-5 per 1000 per year) and these cases are usually secondary to another disorder (Neufield, Swartz, Bienvenu, Eaton & Cai, 1999). Levels of co-morbidity in social phobia are high, particularly with mood and substance disorders (Essau, Conradt & Petermann, 2000; Hunt & Andrews, 1995; Wittchen, et al. 1999).

Social anxiety that does not meet full diagnostic criteria for social phobia is found in the general population (Furmark et al., 1999; Pollard & Henderson, 1988) and with other psychiatric disorders (Striegel-Moore, Silberstein & Rodin, 1993). The effects of social phobia can be disabling, affecting career functioning (Phillips & Bruch, 1988), creating financial difficulties (Schneier, Johnson, Hornig, Liebowitz, Weissman, 1992), and causing severe impairment to the lives of its sufferers (Marshall, 1996).

Research into the nature and treatment of social phobia has increased dramatically since the 1980's. Two cognitive models of social phobia have influenced theoretical understanding of the disorder and improved the success of treatment. The first is the Clark and Wells (1995) model of social phobia. This model outlines maintaining factors of social phobia, distinguishing between processes that occur prior to, during, and after the social situation. The second is Rapee and Heimberg's (1997) audience representation model. This model proposes that when entering a social situation individuals with social phobia form mental representations of their external appearance and behaviour as seen by an audience. Both these cognitive models emphasise a key role for SFA in the maintenance of social phobia. The cognitive models

of social phobia will be described below with particular reference to the role of SFA. This will be followed by a comparison of the two models.

Cognitive Models of Social Phobia

The Clark and Wells (1995) Model of Social Phobia.

The Clark and Wells (1995) model of social phobia proposes that as a consequence of past experience interacting with inherent behavioural predispositions, individuals with social phobia develop a set of assumptions about themselves and their social world. Individuals with social phobia believe that on entering social situations they are in danger of behaving unacceptably and that such behaviour will result in disastrous consequences. Once activated this set of assumptions triggers an "anxiety programme", resulting in cognitive, somatic, affective and behavioural changes. The symptoms of anxiety, together with the strategies used to cope with the anxiety, become further perceived sources of danger and contribute to a series of vicious cycles that maintain social phobia.

The Clark and Wells (1995) model distinguishes between processes that occur when a socially phobic individual enters a feared situation and those that operate before and after leaving the situation. They propose that when socially anxious individuals enter a feared situation they experience a shift in attentional processing towards the self that involves detailed observation and monitoring of the self in order to manage self-presentation in the feared situation. This shift in attentional focus is problematic as it heightens awareness of feared anxiety responses, interferes with the processing of social feedback and detracts attentional resources necessary for managing the social situation.

Once self-focused, socially anxious individuals use interoceptive sources of information such as somatic symptoms, thoughts, and feelings about the self and in some cases memories of adverse events (Hackmann, Clark & McManus, 2000), to construct an impression of their public self. This impression can take the form of a compelling feeling, a felt sense that encapsulates the individual's fears, or a visual image of the self often experienced from an "observer perspective" (Wells, Clark & Ahmad, 1988). In the observer perspective the individual sees himself/herself from another person's viewpoint. The alternative to the observer perspective is the "field perspective" where the individual observes the details of the scene through his/her own eyes. This construction of the self is important as socially anxious individuals believe other people see the distorted image/impression that they have of themselves and tend to base their beliefs about how they appear to others on their own inaccurate self-perception (McEwan & Devins, 1983). The observer perspective provides another source of negative information that may be used to infer an accurate image of the public self, thus further increasing social anxiety. The negative information about the self in the observer perspective maintains anxiety, and at the same time SFA reduces attention to the external environment, reducing the likelihood that the individual will notice positive feedback that could disconfirm negative fears, expectations and the construction of the self.

The model proposes a number of other processes in the maintenance of social phobia; these include the use of in situ safety behaviours, anxiety induced performance deficits and anticipatory and post-event processing. Safety behaviours are hypothesed to maintain anxiety as they prevent the disconfirmation of unrealistic negative beliefs about

feared behaviours and their consequences. Anticipatory processing occurs prior to the social event and is characterised by recollections of memories of social failure and predictions of future disaster. Post-event processing occurs after social events and involves a detailed review of the interaction, in which the individual mulls over negative aspects of their performance. All three factors contribute to processing of social information although at different points in time and in different ways (Mellings & Alden, 2000). SFA plays a role in all of these different stages. Anticipatory processing involves the recollection of past memories, which will have been encoded whilst self-focused, hence highlighting specific information. Post-event processing involves retrieving aspects of past memory, which will again be shaped by SFA, although the extent that SFA leads to biases in memory for a social event is unclear. There may be unresolved questions regarding the role of SFA within these processes, however SFA clearly plays a role in the maintenance of social anxiety.

Rapee and Heimberg (1997) Model of Social Phobia.

Rapee and Heimberg (1997) propose that on entering a social situation socially phobic individuals monitor aspects of their external appearance and behaviour. This includes monitoring behaviour that is observable to the public and internal feelings that may manifest in outward appearance. This monitoring of internal cues is combined with other data such as the retrieval of long-term memories of past experiences, (usually negative in nature) and external cues such as feedback from the audience, to generate an internal mental representation of how individuals think an audience perceives them. The internal mental representation of the self is not likely to be objective, it will include exaggerated images of one or more features of the individual: those which the individual

finds most salient and threat eliciting. Rapee and Heimberg (1997) propose that on entering a social situation the attentional resources of the individual with social phobia are allocated to potentially negative features of the self-image, which are relevant to the situation and also to monitoring external threat (e.g. negative evaluation from the audience). The internal mental representation of the self is modified from moment to moment in response to internal and external cues. In addition to monitoring the internal mental representation of the self and external threat, the socially phobic individual simultaneously formulates a performance standard that he/she expects the audience utilises. The internal mental representation of the self is compared to the predicted performance standard expected by the audience. A discrepancy between the internal mental representation of the self and the perceived audience's standard, determines whether the individual judges negative evaluation as likely. A prediction of negative evaluation elicits further anxiety which has physiological, cognitive and behavioural components, which subsequently influence the individual's mental representation of his/her appearance as seen by the audience, and the cycle is renewed. The comparisons between the individuals internal mental representation of the self and the perceived audience's standard maintains anxiety during and after the social event, as the extent to which an interaction is perceived as a failure or a success is dependent on how closely the two representations match. The internal mental representation of appearance as seen by the audience is problematic as it is often exaggerated. However it is used to infer an accurate public impression of the self. Although not explicitly discussed, the allocation of attentional resources towards the self and towards monitoring external threat, in a social situation is problematic, as it limits attentional resources available to maintain the social situation.

Comparison of the Models.

Rapee and Heimberg (1997) and Clark and Wells (1995) propose a key role for SFA. Both models emphasise the role of self monitoring in a social situation, and suggest that data from this self monitoring process, combined with the influence of past memories and events, are used to construct an impression of the public self. The mental representation of the self, described by Rapee and Heimberg (1997) is very similar to the processing of the self as a social object described in the Clark and Wells (1995) model. The maintenance cycle that links anxiety symptoms and behaviours to internal events are present in both models. Both models highlight the fact that the construction of the public self is often distorted; however it is used to infer an accurate impression of the public self. Although similarities exist between the two models, there are also differences between them. Rapee and Heimberg incorporate external cues and place greater emphasis on the perceived audience perception of the self. The notion that individuals compare their performance to a set standard is not explicitly featured in the Clark and Wells model. Rapee and Heimberg place greater emphasis on external processing, and there is less exploration of internal processing and on the content of the mental representation of the self. Clark and Wells place greater emphasis on internal processing and explore the content and the form of the impression of the public self. Rapee and Heimberg propose that the internal mental representation of the self is seen as if viewed by the audience, which implies an observer perspective, but this is not made explicit. While there maybe differences in the emphasis placed on the processes that maintain social phobia within these two models, both are united in their conceptualisation of the role of SFA and the occurrence of mental representations of the public self.

The concept of self-awareness outlined in the cognitive models of social phobia is present in earlier theories derived from social psychology. Duval and Wicklund's (1972) theory of objective self-awareness and Carver and Scheier's (1981) cybernetic model of self-regulation help to make sense of the processes underlying SFA in the cognitive model. The next section will summarise these theories and discuss their relevance with social anxiety.

Social Psychological Theories

Duval and Wicklund (1972) Theory of Objective Self-Awareness.

Duval and Wicklund (1972) describe two forms of conscious attention: objective and subjective self-awareness. Objective self-awareness is defined as attention that is focused inwards. Subjective self-awareness is defined as attention directed away from the self, towards external objects. Duval and Wicklund (1972) argue that simultaneous occurrence of these two states is not possible, although attention may oscillate between the internal and the external and this oscillation may occur so rapidly that attention appears to take two directions.

Duval and Wicklund (1972) hypothesise that subjective self-awareness is a primary state whereas objective self-awareness needs to be triggered by self-related stimuli. In order for people to become objectively self-aware it is necessary to create conditions that remind them of their status as an object in the world. These conditions can be non-social (i.e. hearing your voice on a tape recorder or looking in a mirror) or social (i.e. the social contact of another human being). They suggest that other people act as strong stimuli for objective self-awareness. When an individual encounters another

person and believes that the other person is focusing on them, the individual's attention will focus inwards. Duval and Wicklund (1972) further hypothesise that a high level of objective self-awareness causes an individual to adopt an external visual perspective, as though viewing the self from the outside. These elements of the theory are similar to the shift in self-focus on entering a social situation and the experience of the observer perspective and internal mental representation of the self, as described by the cognitive models of social phobia.

The theory of objective self-awareness proposes that when individuals become objectively self-aware, they do not react to themselves in a neutral manner but evaluate themselves according to their own psychological system of standards of correctness. The standard used will depend on the individual's ideal behaviour, attitudes, or traits for the given situation. This is similar to Rapee and Heimberg's suggestion that an individual with social phobia compares his/her internal mental representation of the self with a performance standard assumed to be that of the audience.

Duval and Wicklund (1972) argue that when attention is focused on the self there will be an automatic comparison of the self with the individual's standard of correctness and the result will be a perceived discrepancy between the actual and the ideal. Negative affect will be experienced when a substantial discrepancy is salient for the individual. Duval and Wicklund (1972) further argue that the state of objective self-awareness is uncomfortable and the longer the individual remains objectively self-aware the more likely he or she is to become self-critical. As a consequence of the perceived discrepancy between the self and the ideal, the individual will engage in efforts to reduce the

discrepancy or reduce the level of self-focus thereby relieving discomfort. Efforts to reduce the level of self-focus may include physical or mental avoidance of the self-focusing situation.

The propositions within the theory of objective self-awareness are relevant to individuals with social phobia. Spurr and Stopa (2002) argue that in social situations, socially phobic individuals are more likely to spend a greater amount of time in a state of objective self-awareness observing themselves from an external viewpoint, due to the chronic importance they place on social performance. The more time they spend in the objective self-aware state, the more likely they are to engage in negative self-evaluation comparing themselves against their standard of correctness. Their standards for social performance are often unrealistically high (Clark & Wells, 1995) hence there is a high probability of a discrepancy between the actual and the ideal, leading to negative affect. In terms of the cognitive model, negative self-evaluation is likely to increase negative self-related thoughts leading to increased anxiety. In the effort to reduce the discomfort created by objective self-awareness, the socially phobic individual will withdraw or avoid the situation producing the self-focus.

Carver and Scheier (1981) Cybernetic Model of Self-Regulation.

Carver and Scheier's (1981) model is an extension of Duval and Wicklund's theory. Carver and Scheier propose that self-focus results in the engagement of a self-regulating feedback loop, allowing the individual to become aware of progress towards goals and to take relevant action if the standard of correctness is not achieved. They propose that negative affect is only experienced in a state of objectively self-awareness

when the individual judges the likelihood of attaining his/her goal as low. They argue that individuals not only assess the discrepancy between their actual and ideal self but also assess the rate of progression toward reducing the discrepancy (Carver & Scheier, 1982). If the expectancy of attaining the goal and the rate of progression toward reducing the discrepancy is deemed favourable the individual will renew efforts to attain the goal. Whereas if the expectancy of attaining the goal is low and the progression towards reducing the discrepancy is slow, the individual will terminate there efforts and avoid the self-focusing situation. Both tendencies to withdraw and resume efforts are presumed to be exaggerated by further self-focus.

Spurr and Stopa (2002) apply Carver and Scheier's (1981) model to social anxiety. They highlight the fact that socially anxious individuals often perceive themselves as not possessing the ability to perform well in social situations. When self-focused individuals with social phobia perceive themselves as falling short of their ideal standard and their expectations of achieving this standard are low. This leads to a withdrawal of effort and impairment in performance thus creating a vicious cycle. In contrast, when self-focused individuals low in social anxiety, are less vulnerable to negative evaluation because they perceive themselves as capable of performing satisfactory in social situations. Low socially anxious individuals are less likely to perceive a large negative discrepancy between their actual and their ideal standard. If a discrepancy was in existence, they are likely to view themselves as capable of achieving their desired standard, resulting in renewed efforts to obtain their goal.

Public and Private Self-Consciousness.

Within Carver and Scheier's (1981) model, self-focus is divided into two states, private self-consciousness and public self-consciousness. These states are further defined as dispositional traits – public and private self-consciousness (Fenigstein, Scheier & Buss, 1975) and situational private and public self-consciousness (Govern & Marsch, 2001). Public self-consciousness refers to the focus of attention on observable aspects of the self, on qualities of the self in which impressions are formed. Private self-consciousness refers to the focus of attention on private aspects of the self; aspects that are personal in nature and not easily accessible to the scrutiny of others (Fenigstein et al., 1975). Dispositional trait public and private self-consciousness are assumed to be a relatively stable, whereas situational public and private self-consciousness are transient states which are susceptible to manipulation (Carver & Glass, 1976).

Within the literature on social anxiety, trait and situational self-focus (public and private) have frequently been measured using the Self-Consciousness Scale (Fenigstein, et al., 1975). This scale measures public and private self-consciousness as described above. There is a reliable correlation between self-consciousness and social anxiety (Bogels, Alberts & DeJong 1996; Hope & Heimberg, 1988; Mor & Winquist, 2002). Comparisons of clinical samples demonstrate that socially phobic individuals display higher public self-consciousness levels than patients with other phobias and normal controls (Jostes, Pook & Florin, 1999; Sabonchi, Lundh & Ost, 1999). However, Sabonchi and Lundh (1997) demonstrated that the relationship between public self-consciousness and social anxiety disappears after partialling out certain aspects of perfectionism. Bogels and Mansell (2004) propose that public self-consciousness is

associated with social anxiety mainly in people who are concerned over mistakes, doubt their abilities, and perceive perfectionist demands from the environment. However, it could be argued that because of the nature of social anxiety a degree of public self-consciousness is inevitable when there are social evaluative concerns. The relationship between private self-consciousness and social anxiety is less clear, with some studies finding an association (Jostes et al, 1999; Sabonchi & Lundh, 1997) and others finding no association (Bogels et al., 1996; Fenigstein et al., 1975; Sabonchi et al., 1999).

The cognitive models of social phobia propose that socially anxious individuals experience a change in self-awareness triggered by entering a social situation. The discussion of the construction of the self as a social object and the construction of internal mental representation of the self, seen from an observer perspective, suggest a degree of public self-consciousness. These models suggest that the observable aspects of the self are used to construct a public self-impression. However the models also discuss the role of internal self-awareness, describing a heightened awareness of somatic sensations, internal thoughts and feelings that are used to construct an impression of the self, implying a role for private self-consciousness. Although the types of self-awareness are not made explicit in the cognitive models, a degree of both private and public self-awareness can both be viewed as important in the maintenance of social phobia.

Summary of the Role of SFA in Social Anxiety

Duval and Wicklund's (1972) theory of objective self-awareness and Carver and Scheier's (1981) cybernetic self-regulation theory share similarities with Clark and Wells' (1995) and Rapee and Heimberg's (1997) ideas about the construction of the self

as a social object, the occurrence of internal mental representations as seen by the audience, in the form of visual images seen from an observer perspective, and the comparison of perceived performance with an ideal standard. However these theories differ in their predictions about the consequences of SFA for high and low socially anxious individuals. According to Duval and Wicklund's (1972) proposal that objective self-awareness leads to self-evaluation, in which a discrepancy between the actual and the ideal standard produces negative effect, high and low socially anxious individuals are equally vulnerable to negative affect. Whereas, Carver and Scheier (1981) propose that negative affect will only be experienced when individuals predict a low probability of reducing the discrepancy between the actual and the ideal standard, hence only high socially anxious individuals will experience negative affect in the objective self-aware state, because low socially anxious individuals are less likely to predict a low probability of reducing a discrepancy, as adequate social performance is perceived as attainable by this group. Applying this to the cognitive model, socially anxious individuals are likely to experience objective self-awareness in social situations resulting in the generation of internal mental representations of the self as seen by the audience, and leading to the production of an observer image. Individuals with social phobia will experience an increase in negative thoughts when evaluating their perceived self against their ideal standard. A reduction in the discrepancy that exists is likely to be perceived as unachievable, because they doubt their ability to achieve adequate performance, and this will lead to an increase in anxiety, resulting in a possible withdrawal from the situation in order to reduce the discomfort produced by the effects of SFA.

Having outlined the theories relevant to social anxiety the review will now turn its attention to the empirical evidence exploring the role of SFA. First the review will explore evidence examining the causal effects of SFA and then this will be followed by an examination of evidence relating to the construction of images of the self seen from an observer perspective.

Empirical Evidence Examining the Effects of SFA

The Clark and Wells (1995) model of social phobia proposes that SFA increases anxiety, negative self-judgements, reduces attention to the external environment and detracts attentional resources necessary for managing the social situation and hence impacts on social performance. Rapee and Heimberg (1997) suggest that the allocation of attentional resources to monitoring the self and external threat contributes to the maintenance of social anxiety, negative thinking and, although not explicitly discussed, this allocation of resources limits attentional resources available to maintain the social interaction. There is a large social psychological literature on the effects of SFA, which is beyond the scope of this review. The studies most relevant to examining the effects of SFA have experimentally heightened SFA and then studied the effects on various aspects of anxiety and these studies are reviewed below.

Several methods have been used to manipulate self-focus, such as the presence of a video camera, tape recorder, mirrors, or audiences, instructions to focus on the self, hearing one's voice on tape, talking or writing about oneself, heightening arousal by giving false arousal feedback or by imaginative stories. Manipulations that draw attention to external aspects of the self are associated with public aspects of the self,

whilst manipulations that draw attention to internal processes are associated with private aspects of the self (Hass & Eisenstadt, 1991). Studies manipulating self-focus depend on the validity of the manipulations used. Although manipulations are difficult to check the majority of studies have included manipulation checks to ensure their validity. However these manipulation checks have been criticised because asking participants how self-focused they were in an experiment is likely to produce a bias, as it has the immediate effect of focusing individuals on themselves (Wicklund, 1975). Mor and Winquist (2002) compared the various self-focus manipulations to determine which one yielded the strongest effects. Instructions to focus on the self, giving a speech and listening to one's voice produced the strongest effects whereas the mirror manipulation, the video camera, and writing about the self were associated with weaker effects.

Studies manipulating SFA have been criticised for methodological flaws. Socially anxious people fear negative evaluation, therefore manipulations that use an audience or video camera with the explicit or implicit suggestion that the recordings will later be evaluated, may simply enhance social anxiety rather than manipulate self-focus (Bogels & Mansell, 2004). Bogels and Mansell (2004) argue that even if manipulation checks demonstrate that self-focus has been enhanced, because the manipulations have not been corrected for anxiety enhancing effects, studies examining the causal role of self-focus are weakened by this flaw. In social anxiety self-awareness is triggered by the danger of social evaluation, resulting in a shift in attention, hence it is difficult to see how you could enhance self-focus without the suggestion of evaluation, which in turn will inevitably enhance anxiety. Bogels and Mansell's criticism is interesting but raises questions regarding the testability of the hypotheses about the impact of SFA in social

anxiety and whether self-focus manipulations can be corrected for anxiety enhancing effects, and at the same time be ecological valid. Despite these criticisms the use of manipulations is generally accepted within the self-awareness research as an alternative has yet to be proposed.

A number of studies have linked SFA with impairment in social performance, increased social anxiety, and a higher frequency of self-critical thoughts. Groups under study have included analogue populations, individuals high or low in social anxiety, speech anxiety, test anxiety, blushing anxiety and socially phobic patients compared to other anxiety disorder or matched controls. Outcome measures have varied including, self-rated anxiety, physiological measures, cognitive measures and performance measures. Table 1 summarises studies examining the effects of self-focus.

Table 1: The role of SFA

Study	Description of study	Results
Alden, Teschuk, and Tee (1992)	High (*n*=38) and low (*n*=38) SE females took part in an interaction with a stranger. SFA was manipulated with a video, microphone and observer. Dependent measures - anxiety, withdrawal, performance and likeability.	SFA was associated with increased withdrawal, lower performance ratings but there was no effect on anxiety and likeability.
Bogels, Rijsemus and De Jong (2002)	High (*n*=36) and low (*n*=36) SA females took part in a conversation with a male and female confederate. SFA was manipulated using mirrors. Dependent measures - anxiety, physiology, self-rated performance, attributions and performance.	SFA did not increase most dependent measures. SFA decreased positive self-attributions for high SA.
Bogels and Lamer, (2002)	High (*n*=24) and low (*n*=24) BA, high (*n*=30) and low (*n*=30) SA females were asked to image scripts in which the hero was self or	SFA increased dependent measures irrespective of type of feedback. TFA decreased anxiety.

Table 1 continued

Study	Description	Results
	task focused. The hero received positive, neutral or negative feedback. The hero did or did not blush. Dependent measures – anxiety, self-rated cognitions.	SFA detrimental to all subjects.
Burgio, Merluzzi, and Pryor (1986)	High (*n*=24) and low (*n=24)* EX males took part in a phone call with a female confederate. SFA was manipulated using a video camera. Dependent measures - performance, anxiety, conversation time, cognitions, self-perceived performance, attention to avoidance.	SFA lowered performance, shortened conversation and increase avoidance for high EX. SFA increased negative thinking for high EX. There was no effect on anxiety and perceived performance.
Brockner and Hulton, (1978)	High (n=44) and low (*n*=44) SES males and females took part in a conception formation task. SFA was manipulated using a one way mirror with an audience and experimenter present.	SFA was associated with lower performance. TFA improved performance for low SES. SFA increased underestimation of performance for

Table 1 continued

Study	Description	Results
	The experimenter remained neutral or gave instructions to focus on the task. Dependent measures – performance self-rated performance and attributions.	low SES. No effect on attributions.
Carver, Peterson, Follansbee and Scheier (1983)	High (n=59) and low (n=69) TA, females took part in an anagram and solving an insolvable task. SFA was manipulated using a mirror. Dependent measures - performance, persistence, negative self-evaluative thinking and task focused thinking.	SFA lowered performance and persistence, increased negative thinking and decreased task focused thinking for high TA.
Panayiotou and Vrana, 1998	High (n=25) and low (n=30) SA males took part in a digit task under low and high evaluative conditions. SFA was manipulated using a camera. Dependent measures - startle probes, heart rate	SFA increased startle rate for high SA, increased memory deficits under high evaluation, no effect on heart rate.

Table 1 continued

Study	Description	Results
Rich and Woolever (1988)	High TA (n=40) and low (n=40) TA males and females took in a word association task under conditions of positive expectancy and failure. SFA was manipulated using a mirror. Dependent measures – performance.	For high TA: SFA improved performance under positive expectancy and decreased performance under expected failure.
Slapion and Carver (1981)	High (n=48) and low (n=48) TA males and females took part in an IQ test. SFA was manipulated using a mirror and instructions not to attend to it. Dependent measure - test performance.	SFA facilitated performance of high TA subjects who received SFA first.
Woody, (1996)	SP (n=38) listened to or gave a speech. SFA was manipulated by asking participants to give a speech about the self or another or listen to being spoken about. Dependent measures - anxiety,	SFA increased anticipated and observer rated anxiety but there was no difference on self-rated anxiety for subjects in the active

Table 1 continued

Study	Description	Results
	anxious appearance and social performance.	role. SFA increased anticipated self and observer rated anxiety in the passive condition. No effect on performance.
Woody and Rodriguez (2000)	SP (*n*=20) and NC *(n=20)* listened to or gave a speech in front of an audience. SFA was manipulated by asking participants to give a speech about the self or listen to being spoken about. Dependent measures - anxiety, anxious appearance and social performance.	SFA increased anticipated and observer ratings of anxiety in all subjects. NC gave higher ratings of performance than SP.

SFA=self-focused attention, SA=social anxiety, SE=self=efficacy, SES=self-esteem, BA=blushing anxious, EX=performance expectancy TA=Test anxiety, SP=Social phobia patients, OP=Other phobia patients, NC=Normal controls, all experiments with analogue samples were carried out with students, all patient samples consisted of males and females

The studies summarised in Table 1 reflect inconsistent findings: four experiments demonstrated a causal relationship between SFA and aspects of social anxiety; one demonstrated no relationship; five produced partial evidence, in that a causal effect was demonstrated for some variables but not others; and two produced opposite effects in that SFA facilitated performance for high test-anxious individuals, and increased anxiety in a passive condition in socially phobic individuals (Bogels & Mansell, 2004). In combination these studies provide partial support for the cognitive model of social phobia, with some of them supporting the detrimental effects of SFA on anxiety, negative thinking and performance. However others studies demonstrated no effect and this constitutes a problem for the cognitive models. It is possible that the discrepancies between the studies could be explained by the use of differing self-focus manipulations, dependent variables, and sample groups.

Some of the inconsistencies within the research may be due to methodological flaws. Slapion and Carver's (1981) findings that SFA facilitated performance in high test anxious participants could perhaps be explained by the mirror manipulation used in this study. The mirror manipulation is associated with weaker self-focusing effects; hence it is possible that this manipulation did not produce a level of SFA that would impact on performance. Woody's (1996) results indicated that intensifying SFA increased anticipated anxiety and anxious appearance, regardless of whether the individual was giving a speech or passively standing before the audience. The self-focused manipulation also increased self-reported anxiety during the task but only for those assigned to the passive role. Contrary to expectations, SFA did not affect any measure of social performance (by either self or independent judges). In this study it was assumed

that individuals speaking about another person were not self-focused, however for socially phobic individuals speaking in front of an audience regardless of the focus of the presentation is likely to generate a high degree of self-focus. The manipulation check confirmed that self-focus was similar across the conditions, which could account for the absence of a difference in self-rated anxiety. Lack of a significant effect on performance could also be accounted for by problems with the experimental manipulation, which perhaps had the effect of reducing the difference between the focus of attention conditions in the active group.

Bogels, et al., (2002) failed to find support for the causal role of SFA. Contrary to expectations, no evidence was found for the prediction that heightened self-awareness increases fear, physiological arousal, negative thinking, or interferes with task performance or interferes with self-evaluation of appearance and performance. The only variable affected by heightened self-awareness was self-attributions. High socially anxious participants attributed success significantly less to themselves in a state of heightened self-awareness, whereas low socially anxious participants made more internal attributions of success when in a state of heightened self-awareness. The mirror manipulation has been associated with weaker self-focusing effects and perhaps had the side effect of giving corrective feedback about the person's physical appearance and social skills, providing one possible explanation for the absence of an effect. It is also possible that the mirror manipulation may have triggered private self-awareness rather than public self-awareness; if this was the case then participants would have been unlikely to engage in self-evaluation or adopt an observer perspective. This would be

consistent with findings of previous research with regards to mirror manipulations (Carver & Scheier, 1981; Froming, Walker & Lopyan, 1982). However state self-awareness and perspective taking were not measured in this study, hence this explanation remains speculative.

Overall the evidence is partially consistent with the cognitive models of social phobia, Duval and Wicklund's (1972), and Carver and Scheier's (1982) propositions; yet at the same time partially inconsistent. While some studies support the detrimental effects of SFA on anxiety, negative thinking and performance, others do not. Rich and Woolever's (1988) findings that SFA improved performance when the expectancy of achieving success is positive, yet decreased performance when expectancy of success was low, is consistent with Carver and Scheier's proposal that judgements concerning expectancy of success or failure impacts on performance. However, Slapion and Carver's (1981) finding that SFA facilitated performance is inconsistent with Carver and Scheier's (1982) proposal that SFA leads to negative effects when expectancy of success is low. Burgio et al., (1986) findings that SFA significantly increased negative cognitions for all subjects is consistent with Duval and Wicklund's (1972) theory that self-directed attention creates self-evaluation resulting in the discovery of a negative discrepancy between the self and other, but it is not consistent with Carver and Scheier's (1981) theory that when self-aware a high expectancy of success would protect against negative thinking (Spurr & Stopa, 2003). Bogels and Lamers' (2002) findings that SFA led to more social anxiety (irrespective of trait anxiety and the outcome of the social situation), that task-focused attention decreased anxiety, and that SFA is not just

detrimental for individuals who suffer from social fears, contrasts with Duval and Wicklund's (1972) proposal that SFA will have a negative effect only in those who hold negative beliefs about their social self and the way they are evaluated by others.

In summary, the inconsistencies within the literature prevent firm conclusions from being drawn about the causal effects of SFA in social anxiety. The varying sample populations and dependent measures prevent direct comparisons across studies. Caution should be exercised in generalising findings to individuals with social anxiety as many studies identify participants on the basis of criteria other than social anxiety, such as test anxiety, self-efficacy, self-esteem, and performance expectancy, and while it is likely that there is significant overlap between the groups, there may also be significant differences. All of the studies with the exception of one, suffer from the use of manipulations that have not corrected for possible anxiety enhancing effects. While the self-focused manipulation did not enhance anxiety in the Bogels and Lamers (2002) study, it still has its limitations; it used a set of hypothetical scripts which relied on imagination rather than a direct social situation and therefore lacks a degree of ecological validity (Bogels & Mansell, 2004). The issue of specificity remains inconclusive, of the studies reviewed six experiments found that a relationship between SFA and social anxiety existed only in high socially anxious or other vulnerable populations, two found a relationship irrespective of high or low social anxiety and one found an effect in the opposite direction. Within the research on SFA and anxiety there is little comparison across groups or exploration of moderating variables in the effects of self-focus. Mor and Winquist's (2002) meta-analysis on SFA and negative affect found

that females were more adversely effected by SFA than men. The literature on SFA and social anxiety has neglected to directly compare the differing impact of SFA on men and women, possibly due to social anxiety being more prevalent amongst women. However this would be an interesting direction for further research. Further research addressing the methodological flaws and gaps within the research is needed before firm conclusions can be drawn with regards to the maintaining role of SFA in social anxiety.

Evidence Exploring the Construct of the Public Self

The cognitive models of social phobia propose that once self-focused, socially phobic individuals use somatic sensations, thoughts and feelings about the self to construct an impression of the public self. This impression is an internal mental representation that can take the form of a felt sense, or a visual image seen from an observer perspective. The next part of the review explores the evidence in support of the proposal that socially phobic individuals use somatic sensations, thoughts and feelings to infer how they appear to others, and then turns attention to the body of evidence examining the use of visual images seen from an observer perspective in social anxiety.

The Role of Somatic Sensations

A number of studies have investigated the role of somatic sensations in the construction of an impression of the public self. Johansson and Ost (1982) explored awareness of heart-rate changes in social phobic individuals and normal controls. Compared to the control group socially phobic individuals accurately estimated changes in heart rate suggesting a heightened awareness of anxiety related body changes. Mansell and Clark (1999) investigated the effects of experimentally induced body

sensations on ratings of appearance during a speech. During the speech high socially anxious participants' perception of body sensations significantly correlated with self-ratings of anxious appearance and global negative behaviours. Wells and Papageorgiou (2001) gave participants false heart rate information before a social encounter. Those who believed their heart rate was high were significantly more self-focused, more anxious and had more negative self-beliefs in the social situation than those who believed their heart rate was low. In combination, these results represent a growing body of evidence to support the hypothesis that social phobics use interoceptive information to construct an impression of the public self.

The Role of Thoughts and Feelings

It has been suggested that forming an impression of the self as a social object is a relatively common process (Kenny & DePaulo, 1993). However for those with social anxiety it is the inaccurate negative self-impression used to infer how they appear to others that perpetuates anxiety. Several studies support the proposal that socially anxious individual's beliefs about others people's negative evaluations are based on their own self-impressions. McEwan and Devins (1983) asked high and low socially anxious participants to rate themselves on behavioural signs of anxiety and asked a person who knew them well to also rate them using the same checklist. High socially anxious participants overestimated the visibility of their anxiety whereas low socially anxious participant's ratings were in agreement with peer ratings. Stopa and Clark (1993) found that socially phobic individuals reported more negative self-evaluative thoughts than anxious or non-patient controls and rated their performance as significantly more

negative than an observer. The results of the above cited studies are consistent with earlier and later findings that high socially anxious and socially phobic participant's under-rate their performance compared to independent observers (Alden & Wallace, 1995; Clark & Arkowitz, 1975; Heimberg, Hope, Dodge & Becker, 1990; Mellings & Alden, 2000; Norton & Hope, 2001; Rapee & Lim, 1992). These studies suggest that socially anxious individuals tend to make evaluations of themselves on internal processes rather than external data and base how they appear to others on their own self-perception, which is not always accurate.

There is also indirect support that SFA prevents socially anxious individuals from noticing external data. Several studies have found that individuals high in socially anxiety have poorer recall for details of a recent social interaction than individuals low in social anxiety (Daly, Vangelisti & Lawrence 1989; Hope, Heimberg & Klein, 1990; Kimble & Zehr, 1982). Recently, Mellings and Alden (2000) found that socially anxious participants in a social interaction focused their attention more on themselves than on their partner and displayed significant negative biases in their self-related judgements compared to controls. They suggest that self-monitoring increases the salience of anxiety related behaviours at the expense of external information. Perowne and Mansell (2002) found that high socially anxious participants selectively discriminated negative members of an audience, supporting the proposition that socially phobic individuals base their judgements of being negatively evaluated by others on limited processing of the social environment. Mansell, Clark and Ehlers (2003) randomly assigned participants to a social threat or non threat condition and used a probe detection task with high and low

socially anxious participants. Following the task all participants gave a speech and self and independent performance measures were taken. Highly anxious participants' internal attention increased in the social threat condition while external attention increased in the low anxious participants. The high anxiety group were rated lower on positive behaviours and overall success and higher on anxious behaviours by themselves and by the independent assessor. Both groups rated their performance as less positive than the independent assessor; however the discrepancy between the two sets of ratings was larger in the high anxious group. Internal attention was positively associated with overestimation of global negative behaviours in the high anxious group. In combination these studies support the contention that high socially anxious individuals direct their attention internally in socially evaluative conditions and use this information to infer how they appear to others.

Imagery and the Observer Perspective

Cognitive theorists have suggested that imagery plays a key role in the development and maintenance of anxiety disorders (Beck, 1976; Clark & Beck, 1988; Hackmann, 1998). Clark and Wells (1995) suggest that socially phobic individuals distorted beliefs about the threat of the feared situation and internal states are often encapsulated in spontaneous images; these images maintain anxiety and are used to infer an accurate impression of the public self. Research investigating imagery in social phobia initially focused on the occurrence of images and the perspective of these images; progressed to examine whether socially phobic individuals use the observer perspective and whether it is unique to social phobia, and recently we have seen a move

towards investigations into the causal role of perspective taking and self-images in social phobia.

There is a growing body of evidence in support of the proposal that a constructed image seen from an observer perspective has an important role in social anxiety. Hackmann, Surawy, and Clark, (1998) compared the experience of spontaneously occurring images in 30 socially phobic participants and 30 normal controls. Participants recalled a recent episode of social anxiety and were asked whether a spontaneous image had passed through their mind at the moment when they were most anxious. Participants with social phobia reported more spontaneous images when anxious than controls (96.6% vs 75%). These images were more negative in nature and more likely to be experienced from an observer perspective than the images experience by normal controls. Wells, et al., (1998) examined memories for anxiety evoking social and non-social situations in 12 socially phobic patients (DSM-IV criteria) and 12 non-patients. Participants were asked to recall a recent social and non-social event. Having obtained an image of each event they were then asked to rate the perspective from which the image was seen. Participants with social phobia were more likely to view the image of the anxiety provoking social event from the observer perspective compared to controls. Both groups rated their images in the anxiety provoking non-social situation from the field perspective. Hackmann, et al., (2000) interviewed 22 socially phobic patients (DSM-IV criteria) regarding the nature of their images. All participants experienced spontaneously recurring negative images in a variety of feared situations. These images were stable over time, included several sensory modalities, were likely to be viewed

from an observer perspective, and were linked to memories of aversive social events that had occurred at the time of the disorders onset. Hackmann et al., (2000) suggest that early unpleasant experiences may lead to the development of negative images of the social self that are reactivated in subsequent social situations, and fail to update in the light of more favourable experiences. These studies support the hypothesis that individuals with social phobia experience images that tend to be negative, viewed from an observer perspective, and that these images maintain anxiety.

Wells and Papageorgiou (1999) examined whether the use of the observer perspective is unique to social phobia. They explored perspective taking in social phobia, agoraphobia, blood injury phobia and non-patient controls. Participants were asked to recall a recent anxiety provoking and non-anxiety provoking situation. Only patients with social evaluative concerns (individuals with social phobia and agoraphobia) reported an observer perspective for images when recalling anxiety provoking situations. Individuals with blood/injury phobia and normal controls reported a field perspective for both memories. Interestingly only individuals with social phobia demonstrated a shift from the field perspective when recalling non-social situations to an observer perspective when recalling social situations. All other groups reported the same perspective for memories in both situations. Unexpectedly individuals with agoraphobia maintained the observer perspective in both situations. Wells and Papageoriou (1999) speculated that the use of the observer perspective by agoraphobic patients could be due to the heightened processing of the public self being triggered by a wider range of social situations. The results of this study support the hypothesis that social phobics experience

an observer perspective, however the results demonstrated that the observer perspective was not unique to social phobia, which is problematic for the cognitive models. Closer examination of the participants' characteristics in this study show that both the social phobics and the agoraphobics scored within the high range on the fear of negative evaluation scale, which provides some support for Wells and Papageoriou's contention that the observer perspective is associated with socially evaluative concerns.

While the above studies support the hypothesis that socially phobic individuals experience images from an observer perspective they all suffer from the same weakness; they all examine imagery and perspective taking retrospectively. There is evidence from social psychology that the likelihood of recalling an event from an observer perspective increases as time passes (Nigro & Nesser, 1983; Robinson & Swanson, 1993). Frank and Gilovich (1989) suggest that some individuals may possibly learn over time to remember images from a particular perspective through frequent rehearsal of the image in that perspective. The studies reviewed above asked participants to recall anxiety provoking social situations. Given that avoidance of feared situations is common among individuals with social phobia it is possible that when asked to recall a specific social situation, the memory will be older for socially phobic individuals than for controls. These studies do not control for this confounding variable hence it is possible that perspective taking was influenced by the age of the memory rather than being the result of social anxiety. A second area of weakness is that the studies did not control for the differing characteristics of the recalled situations. This shortcoming has been overcome

in later studies by having participants engage in the same situation in a clinic or laboratory then complete dependent measures about the same situation.

The passing of time and its influence on imagery and perspective taking was examined by Coles, Turk, Heimberg and Fresco (2001). They compared 30 socially phobic outpatients (DSM-IV criteria) and 30 non-anxious controls on ratings of memory perspective in social situations varying in anxiety levels (low, medium and high anxiety). They found that as the anxiety level of the situation increased, socially phobic individuals were more likely than controls to see their memories from an observer perspective. The non-anxious controls showed a trend towards using the field perspective as the anxiety level of the situation increased, although this was not statistically significant. Regardless of the group, as anxiety levels increased memories were reported as being older yet the age of memories did not interact with the anxiety level of the situation recalled. Unfortunately the large amounts of variability in the age of memories limited the conclusions that could be drawn from these results. Coles et al., (2001) also examined the effects of anxiety level on ratings of performance and attributions. They found that at all levels of anxiety social phobics rated their performance significantly more negatively than controls and this discrepancy increased with each successive increase in anxiety. By comparison, negative ratings of performance increased in the control group only in response to high anxiety situations. With regards to attributions social phobics were more likely to elicit internal, stable, global attributions for performance and nervousness in high anxiety social situations. This paralleled the pattern of results in which memory perspective moved toward an

observer perspective. The opposite pattern was found for control participants, as the level of threat increased their attributions became more situational, consistent with the notion that the field perspective should be associated with more external, unstable and specific attributions. Unfortunately due to restrictions of measures it was not possible to directly examine correlations of memory perspective and attribution style. Further research is needed to test the hypothesis that an observer perspective increases the likelihood that individuals with social phobia will attribute negative outcomes to dispositional factors. Coles, et al. (2001) discuss the patterns of attributions across the levels of anxiety within the context of research on the self-serving bias in causal attributions. In general individuals attribute their successes to their own effort, abilities, and other dispositional or internal causes, whereas failures are attributed to bad luck, task difficulty or other external causes (Bradley, 1978). The responses for the control participants were consistent with this self-serving bias but a reversal of the self-serving bias was found for socially phobic individuals. This finding was consistent with previous research showing that individuals with social evaluative concerns reverse the self-serving bias when evaluation by others is imminent (Arkin, Appleman & Burger, 1980).

This study raised areas for further exploration; whilst it demonstrated links between perspective taking and attribution, it did not provide any evidence about the causal direction of this relationship. Evidence from social psychology has shown that the perspective from which one views a situation is related to one's causal attributions for the situation. Actors tend to make situational attributions for their own behaviour whereas observers tend to make dispositional attributions for the same actor's behaviour

(Watson, 1982). Frank and Gilovich (1989) examined the relationship between memory perspective and attributions and found that memories from an observer perspective were related to more dispositional attributions for behaviour, whereas memories from a field perspective were related to more situational attributions for behaviour. Similarly conditions of self-awareness increase dispositional attributions (Duval & Wicklund, 1972). If this is the case then shifts in perspective will affect causal attributions. In social anxiety the observer perspective is likely to produce dispositional causal attributions reinforcing the individual's negative beliefs that social failure is due to innate factors (Spurr & Stopa, 2002).

Coles, Turk and Heimberg (2002) set out to further examine the age of memories and perspective taking. Twenty-two socially phobic outpatients (DSM-IV criteria) and thirty non-anxious controls took part in a speech and conversational role-play and rated the perspective used both immediately after the role-play and three weeks later. At both time points, socially phobic individuals recalled the role-plays more from an observer perspective than did non-anxious controls. Over time social phobics used the observer perspective more to recall the role-plays whereas the memory perspective of non-anxious controls remained relatively stable. This is the first study to show that the memory perspective of social phobics and non-anxious controls differ when recalling situations that are largely equivalent and that social phobics use of perspective changes over time. This study also sought to establish whether memory perspective was related to causal attributions. Socially phobic individuals made more dispositional attributions about their nervousness than did non-anxious controls. However, direct correlations

between memory perspective and attributions for nervousness were small. Coles et al., (2002) provide two explanations for this: the results may have been influenced by the restricted range of scores on the attributional ratings, or the attributions of non-anxious individuals may vary according to the memory perspective that is used, whereas social phobics may rate the influence of dispositional factors as strong in any social situation, regardless of the perspective from which they recalled the situation.

Overall, the results reviewed in this section provide evidence in support for the hypothesis that the construction of the self as a social object and the use of the observer perspective is influenced by self-focus and affects thinking, anxiety, and performance. While the above research provides evidence to support the proposal that there is a relationship between the observer perspective and social anxiety, it does not provide evidence of a causal relationship. Studies exploring this question are now emerging. Papageorgiou and Wells (2002) manipulated SFA and examined effects on anxiety, perspective and performance. High and low socially anxious participants were given false heart rate feedback prior to a socially threatening task. High socially anxious participants who received false heart rate information reported greater anxiety, more use of the observer perspective, and rated their social performance as significantly more negative than low socially anxious participants. Spurr and Stopa (2003) examined the effects of manipulating perspective on thinking, anxiety and social performance in high and low socially anxious undergraduates. Forty-four participants gave two speeches, one in the observer and one in the field perspective. Use of the observer perspective produced more frequent negative thoughts, more safety behaviours and worse self-

evaluation of performance in both groups. There were also clear trends showing that the observer perspective is associated with higher beliefs in negative thoughts and an increase in anxiety. Although the use of the observer perspective had the same effects for low socially anxious participants, these effects were not disabling for this group. Two explanations were proposed: firstly the low socially anxious group had far fewer negative cognitions and safety behaviours than the high socially anxious group to start with and an increase from a very low baseline may not have been sufficient to interfere with behaviour or cause significant distress. The increased frequency in negative thoughts in the observer perspective might have been due to the increased self-focus and self-monitoring that occurs with this perspective but because the thoughts are not highly believed they are not troublesome for these individuals. Secondly, observer images for low socially anxious participants may differ qualitatively from high anxious participants. Images may be more positive and realistic for low socially anxious participants. Indirect evidence for this proposal was provided in comparisons of self-rated performance before and after viewing the videotape of the speech in the observer condition. Viewing the videotape did not lead to any changes in self-ratings in the low group, but led to significant improvement in ratings in the high group. Further research examining the valence of observer perspective images in high and low socially anxious individuals is needed to support this proposal. Participants in this study were asked to give a speech adopting a field and an observer perspective, while this allowed exploration of the effects of perspective taking it could be argued that it lacks ecological validity as it did not allow the natural occurrence of perspective taking. It would be interesting to examine perspective taking under conditions of high self-focus in low and high socially

anxious individuals. This would enable examination of whether observer perspectives are inevitable or normal under certain conditions.

The significance of the valence of images experienced by individuals with social phobia and its link with anxiety has been demonstrated in the work of Hirsch, Clark, Mathews and Williams (2003). Hirsch et al. (2003) examined the causal role of self images in social phobia. Patients with social phobia participated twice in a conversation with a stranger, once whilst holding their usual negative image in mind and once holding a less negative image in mind. Compared to the control image condition, when participants held their negative image in mind, they experienced greater anxiety, rated their anxiety symptoms as more visible, used more safety behaviours, and believed they performed poorly. An independent assessor also rated the participant's behaviour as less positive and their anxiety as more evident when the negative image was being held in mind. Requiring individuals with social phobia to hold in mind a less negative self-image led them to feel less anxious and to believe that they displayed less anxiety-related behaviour, with observable benefits to performance. This study demonstrated that negative self-images contaminated social interactions. These findings hold implications for clinical practice as therapeutic outcome might be improved by modifying self-images in social phobia.

The evidence reviewed above is consistent with the proposal that socially phobic individuals construct internal mental representations of their public self, often viewed from an observer perspective, and that this mental representation contains distorted,

negative information about the self that maintains anxiety, interferes with performance, and increases the critical nature of self-judgements. The next section of the review will highlight the therapeutic benefits of changing SFA and negative self-imagery.

The therapeutic Effects of Changing SFA

The importance of shifting focus of attention in social anxiety has been demonstrated therapeutically. Woody, et al., (1997) investigated the relationship between changes in SFA and treatment gains in socially phobic patients ($N = 59$) treated with 10 sessions of group CBT. Over the course of treatment SFA decreased whilst focus on stimuli outside the self remained unchanged. Treatment gains such as a decrease in anxiety in dyadic interactions, negative self judgements and personalised social fears were related to a reduction in SFA. Hofmann (2000) investigated changes in SFA after an eight week treatment programme for patients with social phobia ($N = 23$). A reduction of attentional focus to negative aspects of the self correlated significantly with pre-post social phobia subscale of the Social Phobia and Anxiety Inventory (Turner, Beidel, Dancu & Stanley, 1989). SFA decreased following the treatment programme and a decrease in social anxiety was associated with decreased negative self-related thoughts. Hofmann, Moscovitch, Kim and Taylor (2004) investigated changes in self-perception during treatment of social phobia. Socially phobic participants (n=90) were randomly assigned to twelve weeks group CBT, exposure therapy or a waiting list control. Participants completed thought listing tasks while anticipating socially stressful situations pre and post intervention. Two independent raters classified thoughts based on valence (positive, negative, neutral) and attentional focus (self or other). Both treatments

demonstrated a greater reduction in the frequency of negative self-focused thoughts than the control group. However changes in negative self-focused thoughts and changes in social anxiety were significantly correlated only in the CBT group.

Studies examining the effects on attentional retraining provide further support for the importance of therapeutic gain in shifting attention focus in social anxiety. Bogels, Mulkens and de Jong (1997) found that in two case studies, attention training in which patients are taught to reduce SFA by focusing their full attention on their task and on the environment led to large reductions in fear of blushing and social phobia. Wells, White and Carter (1997) described positive effects of attention training consisting of focusing attention on sounds in a patient with social phobia. Attention training that consisted of increasing attention to task-relevant variables was as effective as cognitive restructuring for students with test anxiety (Wise & Haynes, 1983). A treatment outcome study for socially phobic patients (n=65) found that task concentration was more effective than applied relaxation with fear of blushing, trembling and sweating (Bogels, 2004 submitted for publication). This study also found a reduction in SFA early in treatment was a significant predictor of long-term change in social phobia, fear of blushing, trembling and sweating and predicted further reduction in negative beliefs about blushing, trembling and sweating.

Studies have found that teaching patients to focus attention outwards enhances the effects of cognitive behavioural treatment for social phobia. Wells and Papageorgiou (1998) demonstrated that exposure plus focusing attention outward led to a shift from

the observer to the field perspective and more effectively reduced social anxiety than exposure alone in a series of case studies (N=8). They proposed that directing attention externally promotes the processing of information that may contradict dysfunctional beliefs. Mulkens, Bogels, de Jong and Louwers (2001) found that exposure plus task concentration training was more effective in reducing blushing phobics dysfunctional beliefs than exposure alone (n=26). Bogels (2004) found that task concentration plus cognitive therapy led to greater long-term reduction in fear of blushing, trembling and sweating and in dysfunctional beliefs in patients with fear of showing somatic symptoms, compared to applied relaxation plus cognitive therapy. Mindfulness training in which clients are instructed to become aware of their automatic tendency to self-focus or ruminate and to regain control over attention processes, thereby allowing individuals to disengage from being self-focused has demonstrated positive effects. In a series of case studies (N=10), nine sessions combining mindfulness and task concentration training was effective for patients with social phobia (Bogels, Sijbers & Voncken, 2004).

Adjusting negative self-imagery in social phobia has been incorporated into treatment via the use of videotaping performance. The supposition is that the videotape supplies an accurate picture of the individual's performance and this allows individuals to correct distortions of self-perception. Consistent therapeutic effects of video feedback have been reported in several studies. Rapee and Lim (1992) found that high socially anxious participants rated their performance closer to an independent rater after viewing a videotape of their own performance in comparison to prior ratings of performance. Harvey, Clark, Ehlers and Rapee (2000) found that viewing video feedback helps to

correct excessively negative self-images after a stressful social task. Hirsch et al., (2003) reported that following video feedback, participants invariably commented that they did not look as anxious as expected. Spurr and Stopa (2003) found that following video feedback, highly anxious participant's self-ratings of performance reflected significant improvement. These studies demonstrate that replacing negative images with less negative images led socially phobic individuals to feel less anxious, believe they displayed fewer anxiety related behaviours, which resulted in improvements of self-rated performance. Clearly techniques that modify self-focus and negative self-images in social phobia have therapeutic benefit.

In summary, there is a growing body of evidence demonstrating a relationship between a decrease in SFA and improvements in social anxiety. These studies suggest that teaching socially phobic patients to focus outward and adjust self-images can enhance treatment effects. Having reviewed the evidence exploring the impact of SFA in social anxiety and the therapeutic effects of changing SFA, the final section of the review will draw conclusions and suggest directions for future research.

Conclusions and Future Directions

The literature suggests that SFA significantly impacts on anxiety, performance, and self-judgements supporting the contention made by the cognitive models that SFA has a maintaining role in social anxiety. Yet the inconsistencies within the research prevent the formation of firm conclusions and restrict our ability to generalise findings. These inconsistencies within the research can be accounted for by the heterogeneity of

the samples, the use of different experimental manipulations (with some manipulations associated with stronger self-focusing effects than others), and the use of a variety of different dependent measures. The methodologies used within these studies is also open to criticism: experimental manipulations have not been corrected for possible anxiety enhancing effects and the activities selected for experiments has been criticised as having little ecological validity because in daily life individuals with high social anxiety might avoid such social tasks (Bogels & Mansell, 2004). The issue of specificity has yet to be firmly established, namely whether the detrimental effects of SFA are specific to high socially anxious individuals. It has been demonstrated that SFA is more strongly associated with negative affect in females than in males (Mor & Winquist, 2002) possible due to differing content of the self-focus between men and women, yet the research on social anxiety has neglected to directly compare the impact of SFA in males and females.

Ingram (1990) proposed that the process of SFA is common across psychopathologies but the content differs according to the disorder. Whilst the Clark & Wells (1995) model proposes that SFA serves an important maintaining role in social phobia it does not clearly distinguish between the role of SFA in anticipatory, in situ, and post-event processing. SFA may operate in the same way in all three processes or there may be important differences. Further research is needed on the role and content of SFA in social anxiety that addresses methodological flaws and gaps within the existing research base.

Most of the evidence in support of the cognitive model with regards to self-focus and the use of mental representations experienced from an observer perspective examine observer perspective memories rather than observer perspective experiences. These studies support the proposal that individuals with social evaluative concerns experience spontaneous negative images, often seen from an observer perspective and that these images are sometimes linked to memories of adverse events, but they do not provide evidence of a causal relationship. Further empirical investigations are needed to firmly establish whether observer perspective images are specific to social phobia or to those with social evaluative concerns. The limited evidence in support of the proposal that self-focus and the use of the observer perspective have a clear causal role in the maintenance of social anxiety, indicates that the observer perspective produces more anxiety, more frequent negative thoughts, more safety behaviours and worse self-evaluation of performance. However these results were not specific to those with high social anxiety, low socially anxious participants also demonstrated the same effects. The evidence also indicates that adjusting negative self-images reduces anxiety and beliefs concerning displayed anxiety behaviours. It has been suggested that the observer images may be qualitatively different for low and high socially anxious individuals and that perspective taking influences attributions for behaviour, with the observer perspective increasing dispositional attributions and the field perspective increasing situational attributions for behaviour. These hypotheses require further investigation. Studies examining the causal role of self-focus and the observer perspective are currently sparse. They require replication with larger samples before any firm conclusions can be drawn. There is a need for future studies to examine both perspective taking and the valence of

observer images, to examine whether perspective taking oscillates in social situations and to examine whether adopting an observer perspective is inevitable and normal under certain conditions. There is also a need to examine whether the valence of images differ qualitatively between high and low socially anxious individuals. If this is the case, then treatments targeting the content of the image rather than the perspective would be a productive approach (Hirsch et al., 2003).

When combined the studies investigating SFA, the use of mental representations of the public self as seen from the observer perspective and the therapeutic benefits of addressing these processes, provide a growing body of evidence supporting the maintaining role of SFA in social anxiety. However there is a need to be mindful of the inconsistencies within the evidence base and to recognise that non-significant results are often not submitted for publication, hence there may be a bias within the literature. Further research is needed to address the gaps within the existing evidence base and to expand our understanding of the processes outlined within the cognitive models of social phobia.

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Empirical Paper

The Impact of Self-Focused Attention on Social Anxiety

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Prepared for submission to Behaviour Research and Therapy (see Appendix B)

The Impact of Self-Focused Attention on Social Anxiety

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The Impact of Self-focused Attention on Social Anxiety

Abstract

Cognitive models of social phobia (Clark & Wells, 1995; Rapee & Heimberg, 1997) propose that on entering a social situation individuals with social phobia become self-focused and use internal processing to generate a negative impression of their public self, which is seen from an observer perspective. This impression is used to infer self-image, and as it is usually distorted increases anxiety and impacts on evaluation of performance. This study investigated the effects of self-focused attention on perspective taking, mental representations of the public self, anxiety, shame, and evaluation of performance, with high and low socially anxious participants, in a social and non-social situation. Eighty-seven participants took part in a social and non-social task. In the social task high socially anxious participants reported more negative images, and evaluated some aspects of their performance worse than low socially anxious participants. All participants spent a greater proportion of time in the observer perspective, reported more anxiety and shame, and underrated their performance when compared with an independent observer in the social task. Irrespective of task the high socially anxious participants reported more anxiety and shame than their low socially anxious counterparts. The results partially support hypotheses made by the cognitive models; however it was demonstrated that for some variables SFA appears to have a causal effect in social anxiety irrespective of anxiety status.

Keywords: Self-focused attention; Social phobia; Social Anxiety; Observer Perspective; Negative Images.

1. Introduction

Social phobia is a common disabling disorder, involving fear and avoidance of social situations (Marshall, 1996). Cognitive models of social phobia have influenced understanding and treatment of the disorder. The Clark and Wells (1995) model of social phobia identifies four processes that contribute to the maintenance of social phobia: self-focus and the observer perspective, safety behaviours, anticipatory and post-event processing, and anxiety producing deficits in social performance. The Rapee and Heimberg (1997) model of social phobia also conceptualises a key role for SFA, proposing that distortions and biases in the processing of social information lead to heightened anxiety in social situations and in turn contribute to the maintenance of social phobia. This study focuses on the role of self-focused attention (SFA) and the construction of the self as a social object[1].

Cognitive models of social phobia (Clark& Wells, 1995; Rapee & Heimberg, 1997) propose that social phobics use self-focused processing as one of the main sources of evidence in support of their negative beliefs about how they appear to other people. They suggest that when people with social phobia face potential negative evaluation their attention shifts to detailed observation and monitoring of themselves. Interoceptive sources of information such as somatic symptoms, thoughts and feelings about the self, and in some cases memories of adverse events (Hackmann, Clark & McManus, 2000) are used to construct an internal mental representation of the self. This impression can take the form of a compelling feeling, which encapsulates the individual's fears, or a visual image

[1] This study was run as part of a larger study that went on to examine post-event processing (Appendix G, James, 2005).

of the self, often experienced from an observer perspective, where the individual sees himself/herself from the perspective of another (Wells, Clark & Ahmad, 1988). The alternative to the observer perspective is the field perspective where individuals observe the details of the scene through their own eyes. The observer perspective is important because it provides another source of negative information that may be used to infer an accurate image of the public self, thus further increasing social anxiety. Socially phobic individuals believe that other people see the distorted image that they have of themselves and tend to base their beliefs about how they appear to others on their own inaccurate self-perception, (McEwan & Devins, 1983). The negative information about the self seen from an observer perspective maintains anxiety, and at the same time SFA interferes with processing of social feedback, reducing the likelihood that the individual will notice positive feedback that could disconfirm their negative view of self, and detracts attentional resources necessary for managing the social situation.

A number of studies support the contention that socially phobic individuals focus attention towards themselves when confronted with fearful social situations (Beidel, Turner & Dancu, 1985; Glass, Merluzzi, Biever & Larsen, 1982; Hope, Gansler & Heimberg, 1989; Stopa & Clark, 1993). Empirical studies investigating the causal effects of SFA have experimentally heightened self-focus and examined the effects on various outcome measures including self-rated anxiety, observer-rated anxiety, and cognitive and performance measures of anxiety. Bogels & Mansell, (2004) recently reviewed the body of evidence examining the causal effects of SFA and argue that the results reflect inconsistent findings. Four experiments have demonstrated a causal relationship between SFA and aspects of social anxiety, such as impairment in performance, increased anxiety

and negative thinking (Bogels & Lamer, 2002; Carver, Peterson, Follansbee, Scheier, 1983; Rich & Woolever, 1988; Woody & Rodriguez, 2000); one demonstrated no relationship (Bogels, Rijsemus & de Jong, 2002); five produced partial evidence in that a causal effect was demonstrated for some variables but not others (Alden, Teschuk & Tee, 1992; Brockner & Hulton, 1978; Burgio, Merrluzzi & Pryor, 1986; Panayiotou & Vrana, 1998; Woody, 1996); and two produced opposite effects, in that SFA facilitated performance for high test-anxious individuals (Slapion & Carver, 1981), and increased anxiety in a passive condition in socially phobic individuals (Woody, 1996). Within the studies cited above, some studies only demonstrated a relationship between SFA and social anxiety in high socially anxious individuals or other vulnerable populations, while others demonstrated a relationship irrespective of anxiety status. The inconsistencies within the literature prevent any firm conclusions from being drawn about the causal effects of SFA in social phobia.

The cognitive models of social phobia (Clark & Wells, 1995; Rapee & Heimberg, 1997) propose that on entering a social situation, individuals with social phobia become self-focused and use internal processes to construct an internal mental representation of the public self, which is seen from an observer perspective. Several studies support the hypothesis that socially phobic individuals experience spontaneously occurring negative images seen from an observer perspective, in high anxiety producing social situations (Coles, Turk, Heimberg & Fresco, 2001; Coles, Turk, Heimberg, 2002; Hackman, Clark & McManus, 2000; Hackman, Surawy & Clark, 1998; Wells, Clark & Ahmad, 1998; Papageorgiou & Wells, 2002; Wells & Papageorgiou, 1998). However, few studies directly test the proposition that SFA triggers an image of the public self, which is

generated by internal processes and is seen from an observer perspective, and the majority of this support examines observer perspective memories, rather than observer perspective experiences.

A small body of research is now emerging that investigates the causal role of perspective taking and self-images in social phobia. Spurr and Stopa (2003) examined the effects of manipulating perspective on thinking, anxiety and social performance in high and low socially anxious undergraduates. Participants gave two speeches, one in the observer perspective and one in the field perspective. Use of the observer perspective produced more frequent negative thoughts, more safety behaviours and worse self-evaluation of performance in both groups, and there were trends showing an association with higher beliefs in negative thoughts and increased anxiety. Although the use of the observer perspective had the same effects for low socially anxious participants, these effects were not disabling for this group. The authors suggest firstly, that the low socially anxious group had far fewer negative cognitions and safety behaviours than the high socially anxious group to start with, and an increase from a very low baseline may not have been sufficient to interfere with behaviour or cause significant distress. The increased frequency in negative thoughts in the observer perspective might have been due to the increased self-focus and self-monitoring that occurs with this perspective, but because the thoughts are not highly believed they are not troublesome for these individuals. Secondly, observer images for low socially anxious individuals may differ qualitatively from high anxious individuals. Images may be more positive for low socially anxious individuals. Comparisons of self-rated performance before and after viewing the videotape of the speech in the observer condition provided indirect support for this proposal. Viewing the

videotape led to significant improvement in ratings in the high socially anxious group, but no changes in the low socially anxious group.

The significance of the valence of images experienced by individuals with social phobia, and its causal link with anxiety has been demonstrated by Hirsch, Clark, Mathews and Williams (2003). Patients with social phobia participated twice in a conversation with a stranger, once whilst holding their usual negative image in mind and once holding a less negative control image in mind. Compared to the control image condition, when participants held their negative image in mind they experienced greater anxiety, rated their anxiety symptoms as more visible, used more safety behaviours, believed they performed more poorly and overestimated how poorly they came across. An independent assessor also rated participants' behaviour as less positive and their anxiety as more evident when the negative image was held in mind. Requiring individuals with social phobia to hold a less negative self-image in mind led them to feel less anxious and to believe that they displayed fewer anxiety-related behaviours, with observable benefits to performance. This study demonstrated that the valence of self-images is important in social phobia. However, further research examining the emotional valence of observer perspective images is needed before we can be firmly establish that images qualitatively differ between high and low social anxious individuals.

The negative impact of SFA on self-evaluation of performance, demonstrated in the studies cited above, is consistent with earlier findings that high socially anxious and socially phobic participants under-rate their performance compared to independent observers (Alden & Wallace, 1995; Clark & Arkowitz, 1975; Heimberg, Hope, Dodge &

Becker, 1990; Mellings & Alden, 2000; Norton & Hope, 2001; Rapee & Lim, 1992). These studies support the suggestion, that socially anxious individuals make evaluations of themselves based on internal processes rather than external data (McEwan & Devins, 1983; Stopa & Clark 1993).

The literature cited above provides some support for the proposals made by the cognitive models of social phobia (Clark & Wells, 1995; Rapee & Heimberg, 1997), that on entering a social situation individuals with social phobia shift attention to themselves and use internal processing to construct an internal mental representation of the self and that this mental representation is often distorted but used to infer an accurate self-image, thus further increasing anxiety and impacting on evaluation of performance. However, if this is the case then the detrimental effects of SFA would not be expected in a non-social situation. In order to test the hypotheses made by the cognitive models it is necessary to compare the effects of SFA by evoking equal amounts of self-focus in a social and a non-social situation. This study aims to test these hypotheses by experimentally manipulating SFA in two tasks, a social and non-social task, with high and low socially anxious participants and to investigate the effect on perspective taking, the emotional valence of mental representations of the public self, mood, and the evaluation of performance. It was designed to test the following specific hypotheses. In the social task, the high socially anxious group will use the observer perspective more, report more negative images and anxiety, and evaluate their performance worse than the low socially anxious group even when the degree of self-focus in the two groups is the same. However, because the cognitive models (Clark & Wells; Rapee & Heimberg, 1997) predict that SFA and its effects are activated in social situations, no predictions are made for differences between

the two groups in the non-social task. Similarly, the high socially anxious group will use the observer perspective more, report more negative images and anxiety and evaluate their performance worse in the social task compared to the non-social task even though levels of SFA are the same.

Within the cognitive models of social phobia, the type of SFA used by socially phobic individuals is not specified. Carver and Scheier (1981) divide self-focus into two states, private and public self-consciousness. Public self-consciousness refers to the focus of attention on observable aspects of the self, on qualities of the self from which impressions are formed. Private self-consciousness refers to the focus of attention on private aspects of the self; aspects that are personal in nature and not easily accessible to the scrutiny of others (Fenigstein, Scheier, & Buss, 1975). The cognitive models of social phobia (Clark& Wells, 1995; Rapee & Heimberg, 1997) imply that public self-consciousness plays a role in maintaining social anxiety, in their discussion of the construction of the self as a social object, because the observable aspects of the self are used to construct a public self-impression. However, the models also discuss the role of internal self-awareness, through the heightened awareness of somatic sensations, internal thoughts and feelings that are used to construct an impression of the self, which implies a role for private self-consciousness. It is likely that both private and public self-consciousness have maintaining roles in social phobia. Therefore a subsidiary aim of the study is to examine the influence of private and public self-consciousness in SFA.

2. Method

2.1. *Participants*

Four hundred and five students were screened using the FNES (Watson & Friend, 1969); a scale that discriminates between social-evaluative anxiety and other forms of anxiety. High and low socially anxious groups were selected using the upper and lower quartiles of Stopa and Clark's (2001) normative sample as the cut-off scores. Participants scoring 8 or below were selected for the low FNE group and those scoring 20 or above were selected for the high FNE group. Ninety participants completed the study. Three participants were excluded because they were unable to sustain a level of self-focus in the non-social task, leaving a sample of 87. Participants' age ranged from 18 to 55 years (M = 20.99 years, SD = 5.60). There were 45 participants in the high FNE group (M = 24.36, SD = 3.02), which consisted of 37 women and eight men with a mean age of 20.18 years (SD = 3.86). Forty-two participants comprised the low FNE group (M = 5.38, SD = 2.06), which consisted of 23 women and 19 men with a mean age of 21.86 years (SD = 6.96). As expected there was a significant difference between the groups FNE scores, t (85) = 33.96, $p < .01$. There was no significant difference between the ages of the two groups, t (85) = 1.40, $p > .05$ (two tailed).

2.2. *Design*

The study used a mixed design with one between subjects factor (social anxiety group) and one within subjects factor (social vs. non-social situation). The dependent variables measured perspective taking, percentage of time spent in the observer

perspective, the presence of an image and or sense/impression of the self; the emotional valence of the image and or sense/impression; mood and evaluation of performance.

2.3. *Measures*

The FNES was used to select the high and low socially anxious groups. The Self-Consciousness Scale Revised (SCS-R, Scheier & Craver, 1985) was used to measure individual differences in levels of public, private self-consciousness and social anxiety. The Marlow-Crowne, Social Desirability Scale, Short Form (MC-1, Strahan & Gerbasi, 1972) was used to assess the possibility of a response bias.

2.3.1. *Fear of Negative Evaluation Scale (FNES, Watson & Friend, 1969)*

This is a 30-item true-false questionnaire, which assesses the fear of receiving negative evaluation from other people. The FNES has high internal consistency (alpha = .94), good test retest reliability ($r = .78$), and good discriminative validity ($p < .01$). Studies have shown that cognitive processes in non-clinical high FNES groups are similar to clinical samples (Stopa & Clark, 2001).

2.3.2. *Self-Consciousness Scale Revised (SCS-R: Scheier & Craver, 1985)*

This scale measures individual differences in private and public self-consciousness. The scale is a 20 item self-report scale consisting of three subscales: private self-consciousness, public self-consciousness and social anxiety. The three subscales have good levels of internal consistency (private: alpha = .75; public: alpha =

.84; and social anxiety: alpha = .79) and good test retest reliability (private: r = .76; public: r = .74; and social anxiety: r = .77).

2.3.3. *Marlow-Crowne, Social Desirability Scale, Short Form (MC-1, Strahan & Gerbasi, 1972)*

Social desirability refers to a tendency to distort self-reports in a favourable direction. The MC-1 is a 10 item true-false questionnaire. It has high internal consistency (alpha = .79) and is highly correlated with the full version of the social desirability scale (r = .96) (Fischer & Flick, 1993). Items include "I have never deliberately said something that hurt someone's feelings" and "there have been occasions when I took advantage of someone". The Marlow-Crowne, social desirability scale has been widely used to assess for response bias in self-report research.

2.3.4. *Dependent Measures*

Perspective. Participants were asked to rate the perspective that they used in each task using a seven point bipolar scale ranging from -3 (entirely looking out through my eyes) to +3 (entirely observing myself from an observer point of view). This scale has been used in previous studies examining perspective taking (Wells, Clark & Ahmad, 1998; Wells & Papageorgiou, 1998; Hackmann et al., 1998; Spurr & Stopa, 2003). In addition participants were asked to rate the percentage of time they spent in the observer perspective during each task using a 0-100% visual analogue scale.

Image, Sense and Impression of the self. Following each task, participants were asked whether they had experienced an image, or a sense/impression of themselves whilst

performing the task. If they answered yes, they were asked to describe the image or sense/impression and rate how positive or negative it was, using a bipolar scale ranging from -3 (extremely negative) to +3 (extremely positive) with the 0 as the mid point of the scale (no more positive than negative).

Mood. Participants rated five mood states (happy, angry, anxious, depressed and ashamed) following each task, basing their responses on how they felt during each task, on a 0 (not at all) to 100 (extremely) scale. The measures of interest were anxiety and shame. Participants were asked to rate the other three moods so that they would not be aware that anxiety and shame were the key measures.

Performance. Participants evaluated their performance following each task. Following the social task participants were asked to rate six aspects of their performance: how good their performance was; how good or bad the impression they made was; how interesting they appeared; how anxious they appeared; how fluent their speech was; and if they were asked to do the task again how well they would perform. All ratings used a 0 (not at all) to 100 (extremely) scale. These items were used to measure performance by both the participants and an independent rater in order to test the prediction that high socially anxious participants would underestimate their performance compared to an independent rater. Following the non-social task participants rated how good their performance was during the task using a 0 (not at all good) to 100 (extremely good) point scale.

2.3.5. *Experimental manipulation checks*

Participants were asked to rate the degree of self-focus they sustained during each task using a 0 (not at all self-focused) to 100 (completely self-focused) scale. This was used as a manipulation check.

2.3.6. *Reliability of the Independent Raters*

Two independent raters viewed the videotapes of the social task and rated the participants' performance using the scales described above. The raters were postgraduate students who were blind to the aims of the study. Inter-rater reliability was assessed on 20% of the sample. There was good inter-rater reliability for all scales, (evaluation of performance ($r = .87$), impression ($r = .82$), interesting appearance, ($r = .79$), anxious appearance ($r = .71$), speech fluency ($r = .75$) and future performance ($r = .88$).

Two independent raters, who were blind to the aims of the study, also read the transcripts, which described the participants' images and or sense/impressions, and rated the emotional valence of the descriptions using the -3 to +3 scale (described above). As above, inter-rater reliability was assessed on 20% of the sample and showed good inter-rater reliability for this scale ($r = .84$).

2.4. *Procedure*

Participants read an information sheet and gave written consent to participate in the study. They then completed the SCS-R and the MC-1. Next they performed the two tasks, which were designed to produce high levels of SFA. The tasks were

counterbalanced across participants in order to control for order effects. Participants were given the following instructions:

Social Task: In a few minutes I am going to ask you to make a short videotape of yourself and to imagine that you are making it for a dating agency. You will have five minutes to prepare what you are going to say. We would like you to concentrate on creating a good impression of yourself and the sort of person that you are. Think about what you're like as a person and what your hobbies and interests are. Consider your various personal qualities and think about the best way to present yourself to someone else. Please focus just on presenting yourself in the best light possible and don't talk about the kind of person you want to meet. We will be asking expert raters to watch your videotape and to rate how well you succeeded in presenting yourself. Is that clear? Do you have any questions?

Non social task: We're interested in the strategies that people use when they start putting together a complex jigsaw puzzle. You will have five minutes to sort out the pieces and think about what strategies you will use. After that we will ask you to start putting the puzzle together as quickly as possible. While you are doing the puzzle, we would like you to focus on yourself and think about the strategies you are using to solve it. Try to work as fast as possible but stay aware of what you are thinking and feeling while you do the puzzle. We will be videotaping your hands while you try and solve the puzzle because we are interested in the strategies that people adopt when they are aware of their own performance. Is that clear? Do you have any questions?

Following these instructions, participants were given five minutes to prepare for the task. At the end of this preparation time the experimenter switched on the camera, focusing on the participants head and shoulders in the social task and on their hands only in the non-social task. The experimenter then left the room and the participant performed each task for four minutes. At the end of each task participants completed the manipulation check, and then rated the dependent variables (described above). The participants then went on to take part in a wider study that examined the effects of post-event processing (James, 2005). The studies were conducted in a fixed order; the participants first took part in this study examining self-focused attention and then went on to participate in a study investigating the effects of post-event processing (Appendix G, James, 2005). At the end of this experiment participants were provided with a debriefing statement detailing the purpose of the study (Appendix E).

2.5. *Analysis*

The distribution of data was checked using Kolmogorov-Smirnov tests. A number of variables were not normally distributed; these variables were transformed using a square root transformation. In some cases this improved the distribution, but did not normalise the data[2]. Comparisons between the two groups on the standardised questionnaires were made using independent t-test. A two way mixed design analysis of variance (ANOVA) with one between subjects factor (social anxiety group) and one within subjects factor (social vs. non-social task) was used to investigate effects of self-focused attention on perspective taking, proportion of time in the observer perspective,

[2] The following variables were not normally distributed; perspective for the non-social task; emotional valence of image, sense impression and all performance measures (for the independent rater only).

mood ratings of anxiety and shame, and evaluation of performance. In some cases, because the transformations did not succeed in normalising all of the distributions, the data did not meet assumptions of normality and homogeneity of variance. However, in order to make comparisons between the groups and across conditions, a decision was made to use analysis of variance, which is a very robust statistical procedure, whose assumptions can be violated with minor effect (Howell, 2000). Independent t-tests were used to compare the emotional valence of the images and sense/impressions of the self, because of the variability in the number of images and sense/impressions reported between the groups and conditions. Paired t-tests were used to compare participant and the independent raters, ratings of the emotional valence of images, and sense/impressions. T-tests results were two tailed unless otherwise indicated and an alpha level of $p < .05$ was used for all analyses.

3. Results

3.1. *Participant characteristics*

The high FNE group consisted of 37 women and eight men and the low FNE group consisted of 23 women and 19 men. The gender between the groups was analysed using Chi square; the results showed that there were significantly more females in the high socially anxious group than the low socially anxious group, X^2 (1, N = 87) = 7.65, $p < .05$. On the SCS-R, high socially anxious participants had higher levels of private self-consciousness (High M = 14.98, SD = 5.35; Low M = 11.90, SD = 4.49), t (85) = 2.88, $p < .05$, and higher levels of public self-consciousness (High M =14.22, SD = 3.23; Low M = 7.76, SD = 3.27), t (85) = 9.27, $p < .001$, than low socially anxious participants. As expected, high socially anxious participants also had higher levels of social anxiety (High

$M = 11.18$, $SD = 3.91$; Low $M = 5.98$, $SD = 3.61$), $t\ (85) = 6.43$, $p < .001$, than low socially anxious participants. There was no significant between the MC-1 scores, (High $M = 4.67$, $SD = 2.29$; Low $M = 4.71$, $SD = 1.90$), $t\ (85) = .105$, $p > .05$, indicating that there was no difference between the groups in levels of social desirability.

Table 1 shows the means and standard deviations for dependent variables: self-focus, perspective taking, proportion of time in the observer perspective, and mood ratings of anxiety and shame.

Table 1. Mean and Standard deviations for self-focus, perspective taking, proportion of time in the observer perspective, anxiety and shame.

	Social Task				**Non-Social Task**			
	High FNE		**Low FNE**		**High FNE**		**Low FNE**	
	($n = 45$)		**($n = 42$)**		**($n = 45$)**		**($n = 42$)**	
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Self focus	76.00	18.50	68.81	19.28	51.78	22.59	53.81	22.08
Perspective Taking	0.11	1.79	-0.12	1.83	-1.29	1.36	-1.62	1.38
Proportion of time in the observer perspective	50.20	29.03	46.40	28.39	24.71	20.83	23.86	21.80
Anxiety	72.67	23.88	55.56	26.59	35.33	29.12	18.22	19.10
Shame	31.33	27.01	17.62	25.64	19.11	25.03	7.14	11.53

3.2. *Manipulation Check*

A two way mixed design ANOVA showed there was a significant main effect of task $F(1,85) = 45.13, p < .001$, which indicated that all participants were more self focused in the social task ($M = 72.4$) than the non-social task ($M = 52.79$). However there was no effect of group $F(1,85) = .595, p > .05$ and no interaction between group and task $F(1,85) = 2.49, p > .05$. As there was a difference in self-focus between the two task, all the analyses reported below were repeated using the difference in self-focus between the two conditions as a covariate. However, the covariate did not have a main effect or any interactions in the following analysis (p ranging from .06 to .96) and therefore analysis of variance rather than covariance are reported.

3.3. *Effects of self-focus on dependent measures*

3.3.1. *Perspective Taking*

Perspective was measured on a -3 to +3 scale, where plus figures represented the observer perspective and minus figures represented the field perspective. There was a significant main effect of task $F(1,85) = 39.08, p < .001$, indicating that all participants used a field perspective more in the non-social task ($M = 0.12$) than the social task ($M = -1.46$). However there was no effect of group $F(1,85) = 1.21, p > .05$ and no interaction between group and task $F(1,85) = .05, p > .05$.

3.3.2. *Proportion of time spent in observer perspective*

The proportion of time spent in the observer and field perspective was measured using a 0-100% visual analogue scale. Participants were asked to rate the percentage of time spent in the both perspectives, hence the ratings for the time spent in the field

perspective was the inverse of the time spent in the observer perspective. As the use of the observer perspective was the key variable, the time spent in the field perspective was not analysed. There was a significant main effect of task $F(1, 84) = 9.78$, $p < .05$, indicating that all participants spent a greater amount of time in the observer perspective in the social task ($M = 48.3$) than the non-social task ($M = 24.86$), but no effect of group $F(1,84) = .596$, $p > .05$, and no interaction between group and task $F(1,84) = .00$, $p > .05$.

3.3.3. *Emotional Valence of Images and Sense/Impressions*

The frequency with which participants reported an image or sense/impression of the self varied, Figure 1 shows the frequency of images and or sense/impressions among high and low socially anxious groups in the two tasks.

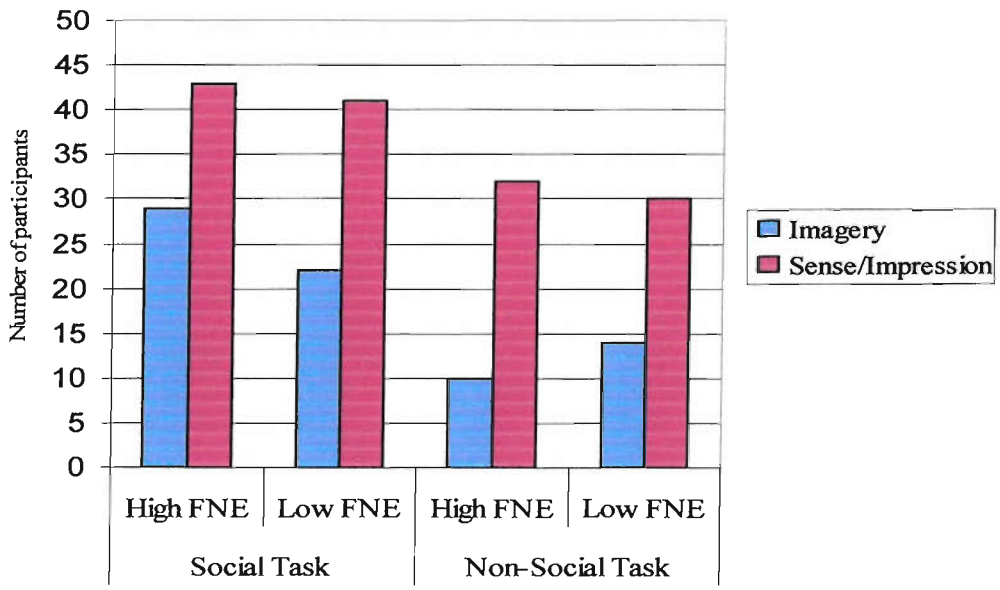

Figure 1. Frequencies of images and sense/impressions

The above frequencies were analysed using Chi square; the results showed that in the social task, there was no significant difference in the frequency of images in the two groups, X^2 (1, N = 87) = 1.30, $p > .05$, or sense/impression of the self, X^2 (1, N = 87) = .28, $p > .05$. There were also no significant differences in the non-social task, between the two groups in the frequency of images, X^2 (1, N = 87) = 1.34, $p > .05$, or a sense/impressions of the self, X^2 (1, N = 87) = .001, $p > .05$. However there was a significant difference in the frequency of an image, X^2 (1, N = 90) = 16.35, $p < .001$, and sense/impression, X^2 (1, N = 90) = 9.68, $p < .05$, in the high socially anxious group between the two task. The high socially anxious group experienced more images and more sense/impressions of the self in the social task, than the non-social task. By comparison there were no differences in the frequency of images between the two task in the low socially anxious group, X^2 (1, N = 84) = 3.11, $p > .05$. However there was a significant difference in the frequency of a sense/impression of the self, X^2 (1, N = 84) = 11.01, $p < .05$, between the two tasks, which indicated that the low socially anxious group experienced more sense/impressions of the self in the social task than the non-social task.

Table 2, shows the means and standard deviations of the emotional valence of images and sense/impressions, as rated by participants and an independent rater. Emotional valence was rated on a -3 (extremely negative) to +3 (extremely positive) scale.

Table 2. Means and standard deviations of participant and observer ratings of emotional valence of image, sense/impressions of the self.

Variable	**High FNE**			
	Participant		**Independent Rater**	
	M	***SD***	***M***	***SD***
Image in social task	-.76	(1.15)	-1.10	(.98)
Image in non- social task	-.30	(1.06)	-.50	(.53)
Sense/Impression in social task	-.60	(1.38)	-1.53	(.91)
Sense/Impression in non-social task	-.09	(1.25)	-.50	(1.05)
Variable	**Low FNE**			
	Participant		**Independent Rater**	
	M	***SD***	***M***	***SD***
Image in social task	.09	(1.34)	-1.18	(1.36)
Image in non- social task	.29	(1.20)	.00	(.78)
Sense/Impression in social task	-.12	(1.44)	-1.29	(1.06)
Sense/Impression in non-social task	.47	(1.30)	-.30	(1.29)

In the social task, the high socially anxious group rated their self-images more negatively than the low socially anxious group, t (49) = 2.43, $p < .05$ (one tailed). However, there was no significant difference between the groups in the emotional valence of images in the non-social task, t (22) = 1.23, $p > .05$ (one tailed). There were also no significant differences between the two groups, in the emotional valence of the

senses/impressions of the self, in the social task, t (82) = 1.57, $p > .05$ (one tailed). However, in the non-social task, the high socially anxious groups showed a trend towards having a more negative sense/impressions of the self, than the low socially anxious group, t (60) = 1.72, $p = .09$ (one tailed).

3.3.3.1. *Comparisons of participants and independent ratings of emotional valence*[3]

In the social task, there was no significant difference between participant and independent ratings of the emotional valence of images, t (28) = 1.78, $p > .05$, for the high socially anxious group; however, the low socially anxious group rated their self-images more positively than the independent rater, t (21) = 6.38, $p < .05$. In the non-social task, there was no significant difference between participant and independent ratings of the emotional valence of images, for either the high, t (9) = 6.12, $p > .05$, or the low socially anxious group, t (13) = .94, $p > .05$.

In the social task, the independent rater rated the sense/impressions more negatively than participants in both the high, t (42) = 4.63, $p < .05$, and the low socially anxious group, t (40) = 7.00, $p < .05$. In the non-social task, the independent rater also rated the sense/impressions more negatively than participant, in both the high, t (31) = 2.27, $p < .05$, and the low socially anxious group, t (29) = 4.17, $p < .05$.

[3] The degrees of freedom differ in this analysis because participant's experience of an image or sense/impression of the self varied within tasks, for example some participants experienced an image of the self in the social task but not in the non-social task.

3.3.4. *Moods*

Table 1 provides the means and standard deviations for the mood ratings of anxiety and shame. For the anxiety ratings, there was a significant main effect of task $F(1,85) = 140.69, p < .001$, indicating that all participants rated their anxiety higher in the social task (M = 64.11) than the non-social task ($M = 26.78$), and a significant effect of group $F(1,85) = 15.16; p < .001$, indicating that the high socially anxious group reported higher anxiety levels ($M = 54$) than the low socially anxious group ($M = 21.05$) overall. However, there was no interaction between task and group $F(1,85) = .83; p > .05$.

For the shame ratings, there was a main effect of task $F(1,85) = 12.69; p < .001$, indicating that all participants reported less shame in the non-social task ($M = 13.12$) than the social task ($M = 24.47$), and a main effect of group $F(1,85) = 10.57; p < .05$, indicating that the high anxious group reported more shame overall ($M = 25.22$) than the low anxious group ($M = 12.38$), but no interaction between task and group $F(1,85) = .075; p > .05$.

3.3.5. *Evaluation of performance*

Participants made overall ratings of how good their performance was in both the social and the non-social task. Table 3 shows the means and standard deviations for participants' performance ratings for the social task. In the non-social task the mean evaluation of performance for the high socially anxious group was 37.11 ($SD = 23.02$) and 39.05 ($SD = 24.39$) for the low socially anxious group. These ratings were analysed using a two way mixed design ANOVA (group x task). There was no effect of task $F(1,85) = .142; p > .05$, no effect of group, $F(1,85) = 2.33; p > .05$) and no interaction between task and group, although there was a trend towards significance $F(1,85) = 3.06$; p =.084.

In the social task, participants and an independent rater rated additional performance measures, which are shown in table 3.

Table 3. Mean and standard deviation of participant and independent performance ratings

Variable	**High FNE** (*n = 45)*			
	Participant		**Independent Rater**	
	M	***SD***	***M***	***SD***
How good was the performance?	30.22	(19.12)	69.77	(18.32)
How good was the impression that was made?	34.67	(19.84)	68.86	(18.70)
How interesting was the appearance?	31.78	(20.37)	66.14	(19.90)
How anxious was the appearance?	65.11	(25.78)	23.64	(17.40)
How fluent was the speech?	34.22	(20.39)	73.18	(18.39)
If the task was repeated how good would the performance be?	43.11	(20.32)	73.41	(17.11)

Variable	**Low FNE** (*n = 42)*			
	Participant		**Independent Rater**	
	M	***SD***	***M***	***SD***
How good was the performance?	40.95	(26.02)	71.43	(13.89)
How good was the impression that was made?	45.48	(22.32)	72.62	(13.46)
How interesting was the appearance?	41.90	(20.27)	68.81	(15.33)
How anxious was the appearance?	58.81	(21.89)	16.43	(14.95)
How fluent was the speech?	41.43	(20.43)	74.76	(14.52)
If the task was repeated how good would the performance be?	55.71	(15.00)	75.48	(12.97)

Each of the performance measures in the social task was analysed using a two way mixed design ANOVA with one between factor (group) and one within factor (rater).

3.3.5.1. *Comparisons of participant and independent ratings of performance*

There was a main effect of rater, $F(1,84) = 305.37$, $p < .05$, indicating that independent ratings of performance were better ($M = 70.6$) than the participant ratings ($M = 35.59$), but there was no effect of group, although there was a trend towards significance, $F(1,84) = 3.62$, $p = .06$. However, there was an interaction between rater and group, $F(1,84) = 5.12$, $p < .05$. Post hoc t-tests showed that the high socially anxious group rated their performance significantly worse than the low socially anxious group, $t(85) = 2.67$, $df = 85$, $p < .05$. However the independent ratings of performance did not significantly differ between the groups, $t(84) = 4.66$, $p > .05$.

3.3.5.2. *Evaluation of impression*

There was a main effect of rater, $F(1,84) = 190.53$, $p < .05$, indicating that the independent ratings of impression ($M = 67$) were better than participant ratings ($M = 40.08$); an effect of group $F(1,84) = 4.47$, $p < .05$, indicating that the high socially anxious group had worse combined ratings (self and independent rater, $M = 51.76$) than the combined ratings of the low socially anxious group ($M = 59.05$), but there was no interaction between rater and group, $F(1,84) = 2.45$, $p > .05$.

3.3.5.3. *Interesting appearance*

There was a main effect of rater, $F(1,84) = 183.96$, $p < .05$, indicating that the independent ratings of interest were better ($M = 67.78$) than participant ratings ($M =$

36.84), but there was no effect of group, although there was a trend towards significance, $F(1,84) = 3.38$, $p = .07$; and there was no interaction between rater and group, $F(1,84) = 2.69$, $p > .05$.

3.3.5.4. *Anxious appearance*

There was a main effect for rater, $F(1,84) = 257.97$, $p < .05$, indicating that the independent ratings of anxiety were lower ($M = 20.04$) than participant ratings ($M = 61.96$), but there was no effect of group, although there was a trend towards significance, $F(1,84) = 3.38$, $p = .07$; and no interaction between rater and group $F(1,84) = .057$, $p > .05$.

3.3.5.5. *Fluency of speech*

There was a main effect of rater, $F(1,84) = 249.63$, $p < .05$, indicating that the independent ratings of speech fluency were higher ($M = 73.97$) than participant ratings ($M = 37.83$), but there was no effect of group, $F(1,84) = 1.63$, $p > .05$; and no interaction between rater and group, $F(1,84) = 1.35$, $p < .05$.

3.3.5.6. *Future performance*

There was a main effect of rater, $F(1,84) = 141.90$, $p < .05$, indicating that the independent ratings of future performance were higher ($M = 74.45$) than participant ratings ($M = 49.41$). There was a main effect of group, $F(1,84) = 6.03$, $p < .05$, indicating that the high socially anxious group had worse combined ratings (self and independent rater, $M = 58.26$) than the combined ratings of the low socially anxious group ($M = 65.60$), and an interaction between rater and group, $F(1,84) = 6.07$, $p < .05$. Post hoc t-tests

showed that the high socially anxious group rated their future performance lower than the low socially anxious group, t (85) = 3.27, $p < .05$, however the independent ratings of future performance did not differ between the groups, t (84) = 6.30, $p > .05$.

3.3.6. *Private and Public Self-consciousness*

As there was a difference between the two groups in private and public self-consciousness, the degree of self-focus in the two tasks was reanalysed entering private and public self-consciousness as a covariate, in case pre-existing levels of self-consciousness had influenced the experimental manipulations. There was a significant effect of private self-consciousness, F (1,83) = 2003.35, $p < .05$. This relationship was investigated using Pearson correlations, which showed a significant relationship between private self-consciousness and the self-focus, $r = .242$, df=85, $p > .05$.

To assess whether the difference between the two groups levels of private and public self-consciousness had affected the results of the analyses of any of the dependent variables, analyses that had shown a significant effect of group (mainly, anxiety and shame mood ratings) were reanalysed entering private and public self-consciousness as covariates. For the anxiety ratings, there was a significant interaction between task and private self-consciousness, F (1,83) = 1744.02, $p < .05$. Pearson correlations revealed a significant relationship between private self-consciousness and anxiety in the non-social task, $r = .269$, df= 85, $p < .05$. However private and public self-consciousness had no effect on the analysis of shame.

4. Discussion

The aim of this study was to examine the effects of SFA in a social and a non-social situation on participants who were high and low in social anxiety. The specific hypotheses derived from the cognitive models of social phobia (Clark & Wells, 1995; Rapee & Heimberg, 1997) and from previous research findings, were that in the social task high socially anxious participants would use the observer perspective more, report more negative images and anxiety, and evaluate their performance worse than low socially anxious participants. However, because the cognitive models predict that SFA and its detrimental effects are activated by social situations, no differences between the two groups in the non-social task were predicted. Similarly we expected more use of the observer perspective, more negative images and anxiety and worse evaluations of performance, in the social task compared to the non-social task, but only in the high anxious group. The results showed that in the social task, high socially anxious participants reported more negative images, and evaluated some aspects of their performance worse than low socially anxious participants; however there were no differences between the groups perspective taking. In the non-social task, high and low socially anxious participants did not differ in perspective taking, anxiety, shame, emotional valence of images, or in their evaluation of performance. The high socially anxious group also reported more negative self-images in the social tasks than the non-social task, but there were no differences in anxiety, shame, perspective taking, and evaluation of performance between the two tasks. Irrespective of task, the high socially anxious participants reported higher levels of anxiety and shame than their low socially anxious counterparts.

A second aim of the study was to examine the effects of SFA on perspective, emotional valence of sense/impressions of the self, shame and performance. No specific hypotheses were derived for the proportion of time spent in the observer perspective, emotional valence of sense/impressions of the self or shame. However, it was predicted that high socially anxious participants would underrate their performance when compared to an independent rater. All participants spent a greater proportion of time in the observer perspective, reported more shame, underrated their performance and overrated their anxious appearance when compared to an independent rater, in the social task. Irrespective of task the high socially anxious group reported more shame overall than the low socially anxious group. There was some evidence that the high socially anxious group came across worse in the social task than the low socially anxious group; the high socially anxious group had worse combined ratings (self and independent rater) for impression they made and future performance than the low socially anxious group; the high socially anxious group also rated their overall performance and their future performance significantly worse than their low socially anxious counterparts, however the independent ratings of impression and future performance did not differ between the groups. However, there was no difference between the groups or tasks for the emotional valence of sense/impressions of the self.

The results of this study partially support the cognitive models of social phobia (Clark & Wells, 1995; Rapee & Heimberg, 1997). The hypothesis that in social situations, SFA increases anxiety and produces negative images of the public self, and affects evaluation of performance were supported. However, many of the effects of high SFA were not specific to high socially anxious individuals. Interestingly, under conditions of

high SFA low socially anxious participants reported similar effects to high socially anxious individuals, for example reported more anxiety and underrated their performance in a social task. Furthermore the mixed results on the effects of SFA in this study, parallel the inconsistencies within the existing literature on SFA. At the same time the present results are also consistent with previous research findings that have produced partial evidence in support of the cognitive models proposals, in that a causal effect of SFA was demonstrated for some variables and not others (Alden, Teschuk & Tee, 1992; Burgio, Merluzzi & Pryor, 1986; Brockner & Hulton, 1978; Woody, 1996; Woody & Rodriguez, 2000). The results are also consistent with previous research that demonstrates a relationship between SFA and social anxiety irrespective of anxiety status (Bogels & Lamer, 2002; Woody, 1996; Woody & Rodriguez, 2000).

One novel part of the current study was that participants were asked to describe their images and sense/impressions of the self in the two experimental tasks and rate the valence of these images and impressions. SFA in the social task produced more images in high socially anxious participants than in low socially anxious participants but the two groups did not differ in the frequency of images in the non-social task. As well as having more frequent images in the social task, the high socially anxious group also rated their self-images more negatively then the low socially anxious group, and this effect was specific to the social task. This finding is consistent with the small body of evidence supporting the cognitive models contention that self-images play an important role in social phobia and suggests that images of high socially anxious individuals differ from the images of low socially anxious individuals (Hackmann, et al., 2000; Hackmann et al., 1998; Hirsh, et al., 2002; Spurr & Stopa, 2003).

Surprisingly, the hypothesis that SFA would result in more use of an observer perspective in high socially anxious individuals was not supported. This result is not consistent with the previous evidence showing that high socially anxious participants use the observer perspective more than low socially anxious participants (Coles et al., 2001; Coles et al., 2002; Hackmann et al., 2000; Hackmann et al., 1998; Wells, et al., 1998; Wells & Papageorgiou, 1999; Papageorgiou & Wells, 2002). However, none of these studies measured degree of self-focus during the event or at the time of recall. The present study suggests that when you equate degree of self-focus in a social situation, then it may eliminate the differences in perspective taking between the groups. This study used two different methods of measuring perspective. The first was a previously established biopolar scale from -3 (field perspective) to +3 (observer perspective) (Wells et al., 1998). The second was a 0-100% visual analogue scale, where participants were asked to rate the percentage of time that they spent in the observer perspective. The two measures provided converging evidence and both measures showed that all participants spent a greater proportion of time in the observer perspective more in the social task than the non-social task. The biopolar scale, although it is a reasonably well established measure does have its limitations. For example what are the participants rating when they select zero? Within the literature on memory, perspective taking is always rated as a categorical variable, namely either the field or the observer perspective (Nigro & Neisser, 1983). If perspective taking is a categorical variable, then the biopolar scale may be confounding two measurements: predominant perspective adopted and time spent in that perspective. If this is true, then the zero ratings on the biopolar scale might present oscillations between the field and the observer perspective. This possibility formed the rationale for asking participants to rate

the percentage of time in either perspective using the 0-100% visual analogue scale. In this study, no-one rated themselves as being in either the field or the observer perspective one hundred percent of the time. This finding provides some initial support for the hypothesis that perspective taking is not a stable phenomenon in social situations, but is a more dynamic and shifting process. Of course, this may not be true for memories of social events where perspective taking may be more stable. The possible differences between perspective taking in situ and in memory need to be empirically tested in order to establish whether this suggestion is true. However, if perspective taking in situ is more dynamic and oscillates between the field and the observer perspective, than measuring the time spent in a particular perspective may be a more accurate measure than the biopolar scale, as the analogue scale captures the oscillation between the two perspectives.

The negative impact of SFA on self-evaluation of performance, demonstrated in this study is partially consistent with previous research (Mellings & Alden, 2000; McEwan & Devins, 1983; Norton, & Hope, 2001; Rapee & Lim, 1992; Stopa & Clark, 1993). Both high and low socially anxious participants underrated aspects of their performance when compared with an independent observer, however on certain performance measures (overall performance, impression and future performance) the high socially anxious participants rated their performance worse than the low socially anxious participants. This partially supports the suggestion that socially anxious individuals make evaluations of themselves based on internal processes rather than external data.

This study set out to test the hypotheses made by the cognitive models (Clark & Wells', 1995; Rapee & Heimberg, 1997) that SFA is activated when socially anxious

individuals enter a social situation, and then internal processes are used to construct an impression of the public self, by comparing high and low socially anxious participants, who were equally self-focused in a social and a non-social situation. Despite successfully piloting the study, it was not possible to sustain equal amounts of self-focus in both situations, and all participants reported less self-focus in the non-social task. As a result it was impossible to directly test the hypothesis that high socially anxious participants would be differentially affected by SFA in a social and non-social task. Nevertheless, analyses of the difference in self-focus between the two tasks did not affect the results reported here. One possibility is that although the difference in SFA between the two tasks was statistically significant, it might not have been large enough to have had a substantial impact on the outcome. Alternatively self-focus may only be partly responsible for the observed differences between the two tasks and other variables that were not measured, such as negative thoughts, social comparisons between the internal mental representation of the self and a perceived audience standard (Rapee & Heimberg, 1997) and meta cognitive beliefs may also have had an impact.

Another possibility is that the type of self-focus in each task may have been different. For example, the social task may have produced increases in public self-consciousness (focus of attention on observable aspects of the self), whereas the non-social task may have produced increases in private self-consciousness (focus of attention on private aspects of the self). The study examined the influence of trait private and public self-consciousness on SFA, and the results were surprising. The results suggested that only private self-consciousness influenced SFA in this experiment. The lack of influence of public self-consciousness is inconsistent with findings of previous research suggesting

that public self-consciousness correlates with social anxiety (Bogels, Alberts & de Jong, 1996; Hope & Heimberg, 1998; Mor & Winquist, 2002; Sabonchi & Lundh, 1997). In this study levels of public and private self-consciousness where measured as a trait. However, state self-focused attention may be more important in determining specific outcomes in an experimental situation, and the manipulation check used here did not differentiate between state public and private self-consciousness. Future studies on the role of SFA would benefit from measuring state private and public self-consciousness separately.

It has been proposed that SFA affects females more adversely than males (Mor & Winquist, 2004). A further limitation of this study is that there was a gender difference between the groups; the high socially anxious group had more females than the low socially anxious group, a gender imbalance which may have influenced the results. Ideally it would preferable to have had equal numbers of men and women in both groups. With few male participants it was not possible to directly compare the differing effects of SFA attention between men and women. This is an area that has been neglected within the literature on SFA, possibly due to social anxiety being more prevalent amongst women. Directly comparing the differing impact of SFA between men and women would be an interesting direction for future research.

The results of the study both support the hypotheses made by the cognitive models, and pose problems for the models, as the effects of SFA were not specific to individuals with high social anxiety. The study demonstrated that SFA does have a causal link with social anxiety, but irrespective of anxiety status. Further research that uses a social task to examine the effects on anxiety across high and low socially anxious individuals, needs to

be mindful of the effects of SFA, and include a measure of SFA in order to establish whether any observed effects are due to increased SFA or social anxiety. Future research designs also need to distinguish between the potential effects of SFA and the potential effects of anxiety. This may prove difficult as the two processes seem intrinsically linked, entering a social situation activates SFA and any social task that has the implicit or explicit suggestion of evaluation inevitably increases anxiety.

5. Conclusion

The cognitive models of social phobia (Clark & Wells, 1995; Rapee & Heimberg, 1997) propose that on entering a social situation high socially anxious individuals shift attention to themselves and use internal processing to construct a negative self-image of the public self, seen from an observer perspective, which is used to infer an accurate self-image, thus further increasing anxiety and impacting on evaluations of performance. If this is true then the detrimental effects of SFA would not be expected in low socially anxious individuals, or in a non-social situation that evokes equal amounts of self-focus. The results of this study are partially consistent with these hypotheses in that high socially anxious individuals reported more negative images, and evaluated some aspects of their performance worse than low socially anxious participants, in a social task. However there was no difference in perspective taking between the groups, and aspects of the results were not specific to high socially anxious participants. All participants spent a greater proportion of time in the observer perspective, reported more anxiety and shame, underrated their performance, and overrated anxious appearance in the social task, when compared with an independent observer. The study demonstrated that for some variables SFA has a causal effect on social anxiety irrespective of anxiety status.

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Appendices

Appendix A

Instructions to authors – Psychological Bulletin

Instructions to Authors

Psychological Bulletin

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Manuscript preparation. Authors should prepare manuscripts according to the *Publication Manual of the American Psychological Association* (5th ed.). Manuscripts may be copyedited for bias-free language (see chap. 2 of the *Publication Manual*). For APA's Checklist for Manuscript Submission, see www.apa.org/journals. **Abstract and keywords.** All manuscripts must include an abstract containing a maximum of 120 words typed on a separate page. After the abstract, please supply up to five keywords or brief phrases. **References.** References should be listed in alphabetical order. Each listed reference should be cited in text, and each text citation should be listed in the References. Basic formats are as follows:

Gallo, L. C., & Matthews, K. A. (2003). Understanding the association between socioeconomic status and physical health: Do negative emotions play a role? *Psychological Bulletin, 129,* 10–51.

Hobfoll, S. E. (1998). *Stress, culture, and community: The psychology and philosophy of stress.* New York: Plenum Press.

Zuckerman, M., DePaulo, B. M., & Rosenthal, R. (1986). Humans as deceivers and lie detectors. In P. D. Blanck, R. Buck, & R. Rosenthal (Eds.), *Nonverbal communication in the clinical context* (pp. 13–35). University Park: Pennsylvania State University Press.

Figures. Graphics files are welcome if supplied as Tiff, EPS, or PowerPoint. High-quality printouts or glossies are needed for *all* figures. The minimum line weight for line art is 0.5 point for optimal printing. When possible, please place symbol legends below the figure image instead of to the side. Formatting instructions and instructions on preparing tables, figures, references, metrics, and abstracts appear in the *Publication Manual.* Original color figures can be printed in color at the editor's and publisher's discretion and provided the author agrees to pay half of the associated production costs; an estimate of these costs is available from the APA production office on request. **Supplemental materials.** APA can now place supplementary materials online, which will be available via the journal's Web page as noted above. To submit such materials, please see www.apa.org/journals/supplementalmaterial.html for details.

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Appendix B

Instructions to authors – Behaviour Research and Therapy

BEHAVIOUR RESEARCH AND THERAPY

Guide for Authors

For full instructions, please visit http://authors.elsevier.com/journal/brat

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Four copies of the manuscript, including one set of high-quality original illustrations, suitable for direct reproduction, should be submitted to **Professor G. T. Wilson, Psychological Clinic at Gordon Road, Rutgers, The State University of New Jersey, 41C Gordon Road, Piscataway, New Jersey, 08854-8067, USA.** Email: brat@rci.rutgers.edu. (Copies of the illustrations are acceptable for the other sets of manuscripts, as long as the quality permits refereeing.)

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An electronic version of the text should be submitted together with the final hardcopy of the manuscript. We accept most wordprocessing formats, but Word, WordPerfect or LaTeX is preferred. The electronic version must match the hardcopy exactly. Always keep a backup copy of the electronic file for reference and safety. Label storage media with your name, journal title, and software used. Save your files using the default extension of the program used. No changes to the accepted version are permissible without the explicit approval of the Editor. Electronic files can be stored on $3\frac{1}{2}$ inch diskette, ZIP-disk or CD (either MS-DOS or Macintosh.

Presentation of manuscript

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Print the entire manuscript on one side of the paper only, using double spacing and wide (3 cm) margins. (Avoid full justification, i.e., do not use a constant right-hand margin.) Ensure that each new paragraph is clearly indicated. Present tables and figure legends on separate pages at the end of the manuscript. If possible, consult a recent issue of the journal to become familiar with layout and conventions. Number all pages consecutively.

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Author names and affiliations. Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author.

Corresponding author. Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

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N.B. Acknowledgements. Collate acknowledgements in a separate section at the end of the article and do **not**, therefore, include them on the title page, as a footnote to the title or otherwise.

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[continued

Guide for Authors—continued

Appendices. If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: (Eq. A.1), (Eq. A.2), etc.; in a subsequent appendix, (Eq. B.1) and so forth.

Acknowledgements. Place acknowledgements, including information on grants received, before the references, in a separate section, and not as a footnote on the title page.

Figure legends, tables, figures, schemes. Present these, in this order, at the end of the article. They are described in more detail below. High-resolution graphics files must always be provided separate from the main text file (see *Preparation of illustrations*).

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Reference to a book:

Strunk, W., Jr., & White, E. B. (1979). *The elements of style.* (3rd ed.). New York: Macmillan, (Chapter 4).

Reference to a chapter in an edited book:

Mettam, G. R., & Adams, L. B. (1994). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281–304). New York: E-Publishing Inc.

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[continued

Guide for Authors—continued

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Attention, Task Performance & Memory

Participant Information Sheet

Information Sheet for Psychology Students

We are Kiran Spence and Michelle James, Trainee Clinical Psychologists at the University of Southampton. We are requesting your participation in a study examining the relationship between attention, task performance and memory.

If you agree to take part in the study you will be asked to perform two tasks, answer some questions about your performance, and fill in some questionnaires.

In one of the tasks you will try to put a complex jigsaw puzzle together as quickly as possible. In the other task you will make a short videotape that describes the sort of person you are and says a bit about your interests and hobbies. Both of the tasks will be videotaped and your performance on each task will be rated by expert assessors. However, in the case of the puzzle task, only your hands will be videotaped, as we are interested in the strategies that people use to solve the puzzle. Once you have done these two tasks you will be asked a series of questions about them. You will be asked to reflect on your experience and answer some questions, and some of your answers will be audio taped. You will then be asked to take some questionnaires home with you to fill in tomorrow. We would then like you to return them to us here when you will be provided with 6 course credits.

Personal information will not be released to or viewed by anyone other than researchers involved in this project. Results of this study will not include your name or any other identifying characteristics.

Your participation is voluntary and you may withdraw your participation at any time. If you choose not to participate there will be no consequences to your grade or to your treatment as a student in the School of Psychology (or any other)]

A debriefing statement will be supplied at the end of the study.

If you have any questions please contact us Kiran Spence at ks602@soton.ac.uk or Michelle at mj602@soton.ac.uk

Attention, Task Performance & Memory

Participants Information Sheet

Information Sheet for Paid Participants.

We are Kiran Spence and Michelle James, Trainee Clinical Psychologists at the University of Southampton. We are requesting your participation in a study examining the relationship between attention, task performance and memory.

If you agree to take part in the study, you will be asked to perform two tasks, answer some questions about your performance, and fill in some questionnaires.

In one of the tasks, you will try to put a complex jigsaw puzzle together as quickly as possible. In the other task you will make a short videotape that describes the sort of person you are and says a bit about your interests and hobbies. Both of the tasks will be videotaped and your performance on each task will be rated by expert assessors. However, in the case of the puzzle task, only your hands will be videotaped, as we are interested in the strategies that people use to solve the puzzle. Once you have done these two tasks you will be asked a series of questions about them. You will be asked to reflect on your experience and answer some questions. You will then be asked to take some questionnaires home with you to fill in tomorrow. We would then like you to return them to us here when you will be provided with £7.50 payment for your participation.

Personal information will not be released to or viewed by anyone other than researchers involved in this project. Results of this study will not include your name or any other identifying characteristics.

Your participation is voluntary and you may withdraw your participation at any time. If you choose not to participate there will be no consequences to your treatment as a student at the university.

A debriefing statement will be supplied at the end of the experiment.

If you have any questions please contact us Kiran Spence at ks602@soton.ac.uk or Michelle at mj602@soton.ac.uk

Statement of Consent

I _____ have read the above informed consent form.
[participants name]

I understand that I may withdraw my consent and discontinue participation at any time without penalty or loss of benefit to myself. I understand that data collected as part of this research project will be treated confidentially, and that published results of this research project will maintain my confidentially. In signing this consent letter, I am not waiving my legal claims, rights, or remedies.

I give consent to participate in the above study.

Yes ☐

No ☐

Signature _____ Date _____

Name _____
[participants name]

I understand that if I have questions about my rights as a participant in this research, or if I feel that I have been placed at risk, I can contact the Chair of the Ethics Committee, School of Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: (023) 8059 3995.

Attention, Task Performance and Memory - Debriefing Statement

Social anxiety is a common experience. In its more extreme form; social phobia, it can cause great distress and significantly interfere in a person's life. A recent model of social phobia (Clark & Wells, 1995) proposes that when people with a high level of social anxiety go into a social situation, they focus their attention on themselves. This shift of attention inwards prevents a person who is socially anxious from noticing positive social feedback. Once attention is focussed inward, some people also generate a negative image of how they appear to others that is constructed from their own thoughts, feelings and internal sensations. This impression can occur in the form of a visual image that is seen from an external, or "observer" perspective. Clark and Wells argue that the constructed image maintains social anxiety because the person believes that other people are seeing the same image, whereas in reality the image is often extremely distorted.

Clark and Wells also suggest that when people leave a situation where they have experienced social anxiety they mull-over aspects of the encounter and their own behaviour. This process is referred to as post event processing. Clark and Wells propose that because an individual was self-focused in the social situation, the thing they remember most about the encounter is an image of the self which is typically negative. Post event processing is thought to maintain social anxiety as it involves an overemphasis on the perceived negative aspects of the situation and does not provide the individual with any new information that may challenge their ideas about how they performed in the social encounter (Rachman, Gruter-Andrews & Shafran, 2000).

The aim of this experiment was to examine elements of the Clark & Wells (1995) model of social phobia by testing individuals with different levels of social anxiety rather than individuals with social phobia. We were examining whether self-focussed attention in a social (the dating video) and a non-social (the jigsaw puzzle) task produced an increase in the use of the observer perspective in high and low socially anxious individuals. The Clark and Wells (1995) model would predict an increase in the use of the observer perspective in the social task but only for high socially anxious individuals. We were also interested in whether a high degree of self-focus would interfere with your evaluation of your performance in either task and that is why you were asked to rate how well you thought you had done. In the case of the dating video, we will also be asking independent raters to rate your performance using the same scale that you completed as there is evidence that socially anxious people underestimate their social performance compared to an independent observer (Stopa & Clark, 1993; Rapee and Lim, 1992).

We were also examining whether spending time thinking about either positive or negative aspects of the social task (dating video) produced a difference in ratings of performance and mood in high and low socially anxious individuals. The Clark and Wells (1995) model would predict that thinking about negative aspects of a social situation during post event processing increases anxiety and leads to negative ratings of performance in highly socially anxious individuals .

Once again results of this study will not include your name or any other identifying characteristics. If you have any further questions please contact us Kiran Spence at ks602@soton.ac.uk or Michelle James at mj602@soton.ac.uk

Thank you for your participation in this research

If you have any questions about your rights as a participant in this research, or if I feel that I have been placed at risk, you may contact: The Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ, Telephone: 02380 593 995

References

- Clark, D. M. and Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope and F. R. Schneier (Eds.) Social Phobia: Diagnosis and Treatment. New York, USA: Guilford.
- Rapee, R. and Lim, L. (1992). Discrepancy between self and observer ratings of performance in social phobics. Journal of Abnormal Psychology, 101, 728-731.
- Stopa, L and Clark, D. M. (1993). Cognitive processes in social phobia. Behaviour Research and Therapy, 31, 255-267.
- Rachman, S., Gruter-Andrews, J., and Shafran, R. (2000). Post-event processing in social anxiety. Behaviour Research and Therapy, 38, 611-617.

Participant Number: _____

Task: Dating video

We would like you to think about the task you have just completed and answer the following questions. There are no right or wrong answers; we are interested in your experiences while making the dating videotape. If you do not understand any of the questions, please ask me. Please think about making the video and try to base your answers on how you felt **during the task** rather than how you feel right now.

1. While you were making the dating video was your attention focused on yourself? In other words were you aware of yourself and how you were thinking and feeling?

I'm going to ask you to mark this scale to show me how much your attention was focused on yourself while you were doing the dating video.

0	10	20	30	40	50	60	70	80	90	100
Not at all self-focused										**Completely self-focused**

2. *If this is task one, use the following instructions:*

It is possible to experience situations from different perspectives. For example, if you are in a situation looking out at it from behind your own eyes, this is sometimes called a field perspective. On the other hand, if you are in a situation and you feel as if you are watching yourself from the outside, this is called an observer perspective. In the observer perspective, you might be aware of yourself and the situation around you, as if you were an observer watching yourself. Do you understand the difference between the field and observer perspectives that I have just described?

If this is task two, use the following instructions:

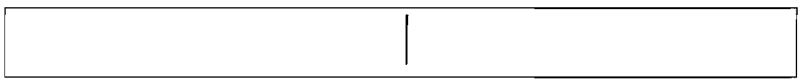
Do you remember that we talked about the observer perspective and the field perspective after the puzzle task. The observer perspective describes the experience of watching yourself from the outside as if you were an external observer and the field perspective describes being on the inside looking out. Is that OK, do you understand?

Please think about your experience while you were making the video and use this scale to rate the perspective that you were using during the task.

-3	-2	-1	0	+1	+2	+3
Entirely looking out from my own eyes						**Entirely observing myself from an pbserver point of view**

Please rate the percentage of time that you spent in either perspective during the dating video by drawing a line on the following scale.

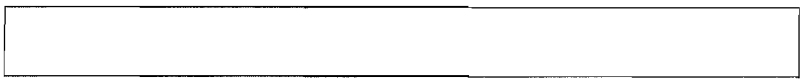
Here is an example



0% **Entirely looking out of my own eyes**

100% **Entirely observing myself from an observer's point of view**

Please indicate the percentage of time you spent in either perspective during the dating video.



0% **Entirely looking out of my own eyes**

100% **Entirely observing myself from an observer's point of view**

3. While you were making the dating video, were you ever aware of an image of yourself?

Yes / No (please circle)

If YES, please can you describe that image in as much detail as possible. It may help you to close your eyes while you do this.

Prompt twice – anything else?

Do summary to check if understood correctly

Please rate on the following scale how positive or negative the image you have just described is.

-3	-2	-1	0	+1	+2	+3
Extremely Negative			**No more positive than negative**			**Extremely Positive**

4. Did you ever have a sense of yourself or an impression of yourself as you were making the dating video *as well as the / even if you did not have an image?*

YES / NO (please circle)

If yes, can you describe that sense of yourself or that impression that you had in as much detail as possible.

Prompt twice – anything else?

Do summary to check if understood correctly

Please rate on the following scale how positive or negative the sense/impression you have just described is.

-3	-2	-1	0	+1	+2	+3
Extremely Negative			**No more positive than negative**			**Extremely Positive**

5. Please think about how you felt while you were making the video. Please circle the number that best describes how you felt during the task:

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all happy — I felt extremely happy

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all angry — I felt extremely angry

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all anxious — I felt extremely anxious

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all depressed — I felt extremely depressed

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all ashamed — I felt extremely ashamed

6. Please rate how good you think your performance was while you were making the dating video task using the following scale

0 10 20 30 40 50 60 70 80 90 100

Not at all good Extremely good

What sort of impression did you make in the dating video?

0 10 20 30 40 50 60 70 80 90 100

Not at all good Extremely good

How interesting do you think you were on the dating video?

0 10 20 30 40 50 60 70 80 90 100

Not at all interesting Extremely interesting

How anxious do you think you appeared to be on the dating video? 0 10 20 30 40 50 60 70 80 90 100

Not at all anxious Extremely Anxious

How fluent was your speech on the dating video?

0 10 20 30 40 50 60 70 80 90 100

Not at all fluent Extremely fluent

If you were asked to make the dating video again, how well do you think you would perform?

0 10 20 30 40 50 60 70 80 90 100

Not at all well Extremely well

Participant Number: _____

Task: Puzzle task

We would like you to think about the task you have just completed and answer the following questions. There are no right or wrong answers; we are interested in your experiences while doing the puzzle. If you do not understand any of the questions, please ask me. Please think about doing the puzzle and try to base your answers on how you felt **during the task** rather than how you feel right now.

1. While you were doing the puzzle was your attention focused on yourself? In other words were you aware of yourself and how you were thinking and feeling?

I'm going to ask you to mark this scale to show me how much your attention was focused on yourself while you were doing the puzzle.

0	10	20	30	40	50	60	70	80	90	100
Not at all self-focused										**Completely self-focused**

2. *If this is task one, use the following instructions:*

It is possible to experience situations from different perspectives. For example, if you are in a situation looking out at it from behind your own eyes, this is sometimes called a field perspective. On the other hand, if you are in a situation and you feel as if you are watching yourself from the outside, this is called an observer perspective. In the observer perspective, you might be aware of yourself and the situation around you, as if you were an observer watching yourself. Do you understand the difference between the field and observer perspectives that I have just described?

If this is task two, use the following instructions:

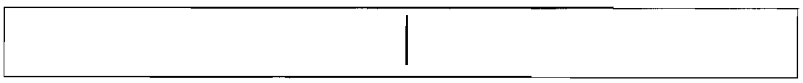
Do you remember that we talked about the observer perspective and the field perspective after the dating task. The observer perspective describes the experience of watching yourself from the outside as if you were an external observer and the field perspective describes being on the inside looking out. Is that OK, do you understand?

Please think about your experience while you were doing the puzzle and use this scale to rate the perspective that you were using during the task.

-3	-2	-1	0	+1	+2	+3
Entirely looking out from my my own eyes						**Entirely observing myself from an observer's point of view**

Please rate the percentage of time that you spent in either perspective during the puzzle task by drawing a line on the following scale.

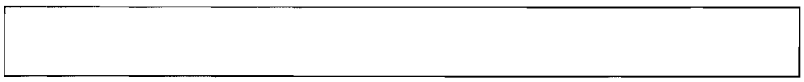
Here is an example



0% **Entirely looking out of my own eyes**

100% **Entirely observing myself from an observer's point of view**

Please indicate the percentage of time you spent in either perspective during the puzzle task.



0% **Entirely looking out of my own eyes**

100% **Entirely observing myself from an observer's point of view**

3. While you were doing the puzzle, were you ever aware of an image of yourself?

Yes / No (please circle)

If YES, please can you describe that image in as much detail as possible. It may help you to close your eyes while you do this.

Prompt twice – anything else?

Do summary to check if understood correctly

Please rate on the following scale how positive or negative the image you have just described is.

-3	-2	-1	0	+1	+2	+3
Extremely Negative			**No more positive than negative**			**Extremely Positive**

4. Did you ever have a sense of yourself or an impression of yourself as you were doing the puzzle *as well as the / even if you did not* have an image?

YES / NO (please circle)

If yes, can you describe that sense of yourself or that impression that you had in as much detail as possible.

Prompt twice – anything else?

Do summary to check if understood correctly

Please rate on the following scale how positive or negative the sense/impression you have just described is.

-3	-2	-1	0	+1	+2	+3
Extremely Negative			**No more positive than negative**			**Extremely Positive**

5. Please think about how you felt while you were doing the puzzle. Please circle the number that best describes how you felt during the task:

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all happy — I felt extremely happy

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all angry — I felt extremely angry

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all anxious — I felt extremely anxious

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all depressed — I felt extremely depressed

0 10 20 30 40 50 60 70 80 90 100

I did not feel at all ashamed — I felt extremely ashamed

6. Please rate how good you think your performance was in the puzzle task using the following scale

0	10	20	30	40	50	60	70	80	90	100

Not at all good

Extremely good

The following is the abstract for the wider study.

Abstract

Clark and Wells (1995) propose that after participating in social situations individuals with social phobia engage in post-event processing (PEP) where they review the event in detail. They suggest that the content of PEP is dominated by the negative thoughts and anxious feelings processed while the individual was in the social situation. This results in the interaction being viewed as more negative than it actually was, thereby increasing anxiety. This study manipulated PEP by asking participants to focus on either the positive or the negative aspects of a social situation, and examined the effect on imagery, thinking, performance appraisals, and mood in high and low socially anxious individuals. Consistent with both Clark and Wells' model, and previous research, high socially anxious individuals rated their performance as worse, predicted worse performance, had more negatively valenced images, thought more about negative aspects of their performance in PEP and reported higher levels of anxiety and shame in a social situation compared to low socially anxious individuals. This study also provides preliminary evidence to suggest that engaging in positive PEP may have beneficial effects on ratings of performance, future performance, image and impression valence and thoughts during PEP in high socially anxious participants.

Key words: post-event processing, social phobia, social anxiety

James, M. (2005). The effects of positive and negative post-event processing on socially anxious individuals. Unpublished thesis, Southampton University, Southampton.

Appendix H

University of Southampton Ethical Approval Letter

University of Southampton

School of Psychology

University of Southampton
Highfield Southampton
SO17 1BJ United Kingdom

Tel +44 (0)23 8059 3995
Fax +44 (0)23 8059 4597

20 May 2005

Kiran Spence
Department of Clinical Psychology
University of Southampton
Highfield, Southampton
SO17 1BJ

Dear Kiran,

Re: Self-focused Attention and the Observer Perspective in Social Anxiety

I am writing to confirm that the above titled ethics application was approved by the School of Psychology Ethical Committee on 16 July 2004.

Should you require any further information, please do not hesitate in contacting me on 023 8059 3995.

Please quote approval reference number CLIN/03/45.

Yours sincerely,

KMSmith

Kathryn Smith
Secretary to the Ethics Committee