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What is the role of self-evaluations in social anxiety: Can self-compassion counter negative evaluation?

by

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Thesis Abstract

Cognitive models of social phobia (Clark & Wells, 1995; Rapee & Heimberg, 1997; Hofmann, 2007) propose that social phobia is maintained by a fear of negative self-evaluation. The literature review focuses on the role implicit and explicit self-evaluations play in social phobia, including visual self-images. It then examines the ways in which self-compassion may counter negative self-evaluations.

The empirical paper examines whether a self-compassionate induction can influence implicit and explicit measures of self-esteem. Sixty-three socially anxious participants gave a two-minute speech and were then randomly assigned to one of three conditions (Self-compassionate induction; emotional processing control; pure control) in order to examine the impact of self-compassion on implicit and explicit self-esteem and visual self-images in social anxiety. Consistent with previous research, all participant's exhibited a positive implicit self-esteem, as measured by the Implicit Association's Test (IAT). The three groups did not differ significantly on levels of implicit and explicit self-esteem, or the valence of visual self-images. However a significant correlation between implicit and explicit self-esteem was observed in the self-compassionate group only, providing partial support for the hypothesis that self-compassion may reduce the discrepancy between implicit and explicit self-esteem. Implications of the results are discussed, as are the limitations of the study and suggestions for future research.

Literature Review

What is the role of self-evaluation in social anxiety: Can self-compassion counter negative evaluation?

Empirical Paper

The Impact of an Experimentally Induced Self-Compassionate Perspective on Implicit and Explicit Self-Esteem, in a Socially Anxious Analogue Group

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Abstract

People with social phobia fear negative evaluation (Clark & Well, 1995; Hofmann; 2007; Leary, 2001; Rapee & Heimberg, 1997). The aim of this review is to consider the role self-evaluation plays in social phobia. Current models of social phobia will be examined paying particular attention to the importance of, and evidence for, negative self-evaluations and self-images. This review will focus on the key question of how an individual's view of self (both implicit and explicit) functions to determine how socially anxious they are. The relationship between self-esteem and self-compassion will be examined and it will be argued that measures of self-compassion offer a more parsimonious and clinically useful explanation of how an individual's self-evaluation can determine their experience of social anxiety. Future directions for research are considered.

Key words: social anxiety disorder; social phobia; self-esteem; implicit self-esteem; self-compassion

What is the role of self-evaluation in social anxiety: Can self-compassion counter negative evaluation?

Introduction

People with social phobia fear negative evaluation (Clark & Well, 1995; Hofmann; 2007; Leary, 2001;Rapee & Heimberg, 1997). The aim of this review is to consider the role self-evaluation plays in social phobia. Current models of social phobia will be examined paying particular attention to the importance of, and evidence for, negative self-evaluations and self-images. A common measure of self-evaluation is self-esteem (Rosenberg, 1965). Self-esteem can be conceptualised as a measure of an individual's view of self as compared to how they consider they compare to others and how they would like to be viewed by others. Self-esteem can be implicit (an automatic self-assessment) and explicit (a conscious reasoned self-assessment). This review will focus on the key question of how an individual's view of self (both implicit and explicit) functions to determine how socially anxious they are. The relationship between self-esteem and self-compassion will be examined and it will be argued that measures of self-compassion offer a more parsimonious and clinically useful explanation of how an individuals' self-evaluation can determine their experience of social anxiety.

Literature review search strategy

A literature search was carried out using the Psychinfo and Medline databases (1985-present). Search terms included; social anxiety disorder; social phobia; self-esteem; implicit self-esteem; self-compassion.

1. What is social phobia?

Social phobia is a distressing condition that has a serious debilitating impact on a relatively large percentage of the population, (Rapee & Spence, 2004). Furmark (2002) has reviewed literature on prevalence rates and found that social phobia is far more prevalent in Western societies, in comparison to South-East Asian countries, where it affects between 7% and 13% of individuals across their lifetime. Social phobia is defined as "a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or the possible scrutiny by others. The individual fears that he or she may act in a way (or show anxiety symptoms) that will be humiliating or embarrassing" (DSM-1V, APA, 1994, p.416). It has been divided into two subtypes: *generalised,* when the fear is felt in a wide variety of social situations, and *specific*, when the fear is experienced in one specific social situation. The most commonly feared social situation is public speaking (Holt, Heimberg & Hope, 1992; Hope, Heimberg, Hope & Liebowitz, 1992). For a comprehensive review of the current theories of aetiology of social phobia, see Rapee and Spence (2004).

Rapee (1995) has argued that social phobia can be viewed as lying at the upper end of a continuum of social anxiety. The term *socially anxious* can refer to "levels along a normally distributed continuum", ranging from total lack of social anxiety to the extreme social withdrawal characteristic of an avoidant personality disorder, (Rapee & Spence, 2004, p. 739). An individual's view of self is commonly agreed to be a fundamental factor in determining where an individual will be placed on the social anxiety continuum. This review will focus on the processes that maintain an individual's high position on the social anxiety continuum (high socially anxious) and

examine the dynamic risk factors (e.g. a negative self-evaluation) and potential protective factors (e.g. a self-compassionate perspective) that may determine and maintain a person's position on that social anxiety continuum. It will be argued that self-compassion offers an alternative way of viewing the self in social situations, which can help socially anxious individuals break away from their habitual patterns of distorted information processing and negative self-evaluation, which combine to maintain a negative view of self and high levels of social anxiety.

2. Models of social phobia

2.1 Evolutionary models

Gilbert and Trower, (2001) have argued that social anxiety should be viewed within an evolutionary framework, as social anxiety can operate as an adaptive emotion that helps maintain cohesion in social groups (Trower & Gilbert, 2004). Humans are motivated by a desire to be a valued by others (Baumeister & Leary, 1995; Gilbert, 2001). They become anxious when they doubt their ability to make a favourable impression, and this leads to feelings of social anxiety, (Clark & Wells, 1995; Leary, 2001; Trower & Gilbert, 1989). Gilbert (2001) has described how social anxiety is triggered in contexts where individuals perceive that they are relatively low in status and are at risk of losing status and/or resources. Socially anxious (submissive) behaviours are adopted as they can be adaptive in competitive, threatening social situations, (when one is low in the social hierarchy), because they can deflect conflict and aggression. However when submissive behaviours (e.g. avoiding eye contact, talking only briefly, leaving long pauses, self-criticism) are used in an attempt to avoid rejection, they can result in loss of status and heightened vulnerability. This increases social anxiety.

Gilbert (1989, 1995, 2005) has suggested that different emotions and information processing strategies can result in different patterns of neurophysiological activity, which he has called *social mentalities*. Gilbert (2004) has argued that social anxiety can occur as a defence in response to feeling subordinate, rejected, shamed or inferior, when the *social ranking mentality* has been activated. This social mentality is about threat and social power. It involves "striving to be valued by others for social inclusion (or to exert control over others), seeking status in the eyes of others to be chosen in the competitions for social place, being highly sensitive to social comparisons with fears of 'not being good enough or inferior', and heightened shame sensitivity", (Gilbert, 2005, p. 17). In contrast, compassion can occur in response to the activation of the *care giving social mentality*, which involves care, co-operation and concern for others. Gilbert (2005) describes how when humans pursue goals they need to modify strategies according to whether the environment is safe or threatening (Gilbert 1989, 1995, 2005) and therefore they need to be vigilant for early indications of threat. Compassion and social anxiety appear to be the products of separate social mentality systems. The processes of social comparison involved in self-evaluation (measured by self-esteem inventories) can activate the social ranking mentality, which heightens awareness of threat and self-focused attention. In contrast, the processes involved in self-compassion activate the care-giving mentality, enabling a focus on nurturing behaviours and an external focus on common humanity (Neff & Vonk, 2006). It will be argued that this is likely to reduce social anxiety.

2.2 Leary's Self-presentation Theory (Leary, 1986, 2001)

Consistent with the evolutionary models, Leary (1986, 2001) proposes that social anxiety occurs when people fear that they are unable to make the favourable

impression they desire on others. They fear that others will not consider a relationship with them to be important and valuable, meaning that others are less likely to help the individual reach their basic goals of social inclusion (and survival). This is threatening as it can leave the individual vulnerable to rejection and social exclusion. In evolutionary terms this could threaten reproductive and survival success (Vertue, 2003). Socially anxious individuals fear that they will fail to make a favourable impression on their audience, which may prevent them attaining their goals (of social acceptance). This will lead them to view social situations as threatening and will increase their social anxiety.

Fear of failing to make a favourable impression on others is also related to low self-esteem. Leary, Tambar, Terdal and Downs (1995) propose that self-esteem is a measure of the extent to which people believe they are being accepted or rejected by others. Leary (1999) uses the analogy of a "sociometer", which he describes as an internal gauge of the individual's level of social inclusion. It can be used to monitor the chances of exclusion (and rejection) based on the reactions of others. Leary (1990) has said "virtually all events that raise self-esteem maintain or improve the individual's chances of being included, whereas events that lower self-esteem decrease inclusion likelihood", (p. 226). This suggests that self-esteem can be predicted by how accepted an individual feels during social interactions. Support for this comes from Baumeister, Dori, and Hastings (1998) who asked people about events that raised or lowered their self-esteem. They found that events where the individual failed to connect to others were associated with low self-esteem. Events, which involved a sense of achieving social belongingness raise self-esteem (see Allen & Knight, 2005). If a person develops a belief that they are likely to be rejected by

others (low self-esteem), they are likely to experience high social anxiety, because of how threatening social-evaluative situations will seem. People with low self-esteem feel less valued by others and so are more likely to experience social anxiety because they fear that others will reject them. In this way, negative self-evaluations and the fear of rejection are fundamental to the experience of social anxiety and low self-esteem. Both social anxiety and low self-esteem can be viewed as products of the activation of the social ranking mentality (Gilbert, 2005). In contrast, acceptance and compassion occur in response to the care giving social mentality, with a focus on co-operation, rather than competition.

2.3 Cognitive Models of Social Phobia

A critical view of self is at the centre of current information processing models of social phobia (Clark & Wells, 1995; Hoffman, 2007; Rapee & Heimberg, 1997). The models propose that social phobia is maintained by cognitive distortions and a bias in the way that social information is processed. In social phobia, the content of thoughts, attitudes, beliefs and self-images are negative and distorted; these distortions are maintained by the biased way in which new social information is processed (see Clark & McManus, 2002, for a review of these information processing biases). In order to examine the role of critical views of self in maintaining social anxiety, I will briefly outline the information processing models of social phobia, paying particular attention to the similarities between the models. Evidence for a critical negative self-view will be reviewed, followed by a discussion on the processes that maintain the distorted negative view of self and social anxiety. The feared consequences of exposing the

negative self-image to others will be examined. Finally, the motivations for engaging in processes that maintain social phobia will be discussed.

2.4 What do information processing models of social anxiety have in common?

People with high levels of social anxiety have high standards and expectations about how they think they should perform in social situations They believe that they will fail to meet these standards (Clark & Wells, 1995; Leary, 2001) and fear the consequences of this (Clark & Wells, 1995; Wilson & Rapee, 2005). They over-estimate the perceived threat of social situations (Beck, Emery & Greenberg, 1985; Clark & Wells, 1995; Rapee & Heimberg, 1997). The information processing models share the idea that social anxiety is maintained by information processing biases in the way that threat-pertinent information is processed, resulting in a negative view of social situations and of the self.

A fundamental component of the information processing models, is the key role that a negative self-view plays in maintaining social phobia. Studies have found that people with social phobia report more negative thoughts and self-beliefs in social situations (Stopa & Clark, 1993). For a comprehensive review of this area see Clark and McManus (2002) and Hirsch and Clark (2004). A core feature of the negative self-view in social anxiety is the presence of negative and distorted self-images. This contributes to an over-estimation of how negatively others will evaluate the socially anxious individual's performance. Information processing models of social anxiety propose that a negative self-image plays a central role in maintaining social anxiety (Clark & Wells, 1995; Hofmann, 2007; Rapee & Heimberg, 1997).

2.5 What do the models predict about the role of self-images?

Cognitive models predict that socially anxious individuals create negative representations of themselves, based on how they think they are perceived by a real or imagined audience (Rapee & Heimberg, 1997). When there is a large discrepancy between the representation of the self and the perceived expectation of the audience, individuals evaluate themselves negatively, resulting in higher levels of social anxiety. In their model, Clark & Wells (1995) refer to the construction of self-images as the processing of the self as a social object and emphasise the importance of the content of the images. The distorted self-image is taken as veridical which increases the perception of threat (which may be rejection) and the experience of anxiety. Hirsch and Holmes (2007) describe how clients with social phobia generate distorted negative images of themselves performing poorly in social situations. These images occur spontaneously and provoke feelings of anxiety, which the client believes are visible to observers. These images may be used by socially anxious individuals to calibrate their performance against the perceived audience response and to help them judge whether they are making a favourable impression on their audience or not.

2.6 Evidence for negative visual self-images

Distressing visual images are common in all anxiety disorders (Hirsch & Holmes, 2007) and the content of these images is connected to the central fear that characterises the disorder. Imagery is thought to play a key maintaining role in social phobia. Questionnaire studies have provided evidence that people with social phobia

report spontaneous visual images of the self, when in socially threatening situations (Hackman, Surawy & Clark, 1998). Hackmann et al (1998) found that 77% of participants with social phobia reported negative images from an observer perspective (seeing the self as though from another person's viewpoint), in comparison to 10% of controls. These images were usually linked to past negative social experiences that were experienced as traumatic (Hackmann, Clark & McManus, 2000). The images in social phobia are likely to be viewed from an observer's perspective (Wells, Clark & Ahmad, 1998), suggesting that concerns about social evaluation are related to how individuals imagine they are being perceived by others (based on past experiences).

There is descriptive and experimental evidence that demonstrates the role of negative self-imagery in social phobia. Results of experimental studies suggest a causal link between negative self-images and social anxiety. Participants with social phobia experienced higher levels of anxiety when holding their usual negative visual image, during a conversation with a stranger, in comparison to when they held a more positive visual image (Hirsch, Mathews, Clark, Williams & Morrison, 2003). Independent raters detected higher anxiety levels in participants who were holding their usual negative image (during a conversation), although the anxiety symptoms were less noticeable than the participants predicted. This suggests that socially anxious participants use their exaggeratedly negative visual image of self to judge the impression they are making on others. This will increase socially anxious individuals' perception that they are creating the negative impression they fear, which will increase their social anxiety. In this way, the negative visual image is used as supporting evidence for the negative beliefs held by socially anxious individuals, on how they appear to others.

So far, I have reviewed evidence suggesting that negative self-images can lead to inaccurate inferences in social situations. Hirsch, Mathews and Clark (2007) have examined whether the reverse is also true. Can inducing an inferential bias change the content of self-related images? Hirsch et al. (2007) allocated non-socially anxious participants to either a benign or negative interpretation bias training condition. The benign interpretation training involved exposure to a series of ambiguous scenarios which were resolved in a benign way; the negative interpretation training involved the presentation of the same scenarios which were resolved in a negative way. After training, participants were asked to generate images of themselves in social situations and to describe how pleasant they thought they would find the situation. Those who had been trained to make negative interpretations reported more negative self-images. When asked to predict how anxious they would feel in a future social situation, (leading a seminar), those who had been trained to make negative interpretations expected to perform more poorly and feel more anxious than those who had been trained in the benign condition. The induced negative interpretation bias influenced self-imagery, anticipated performance and social anxiety, in non-socially anxious participants. This suggests that inferential bias and self-images can work together to maintain social anxiety, (Hirsch et al, 2007). When low socially anxious people are trained to expect negative outcomes in social situations, they will experience negative self-images and experience greater anticipatory anxiety when thinking about future social situations. Stopa and Jenkins (2007) suggest that negative imagery may block access to more positive memories while facilitating access to congruent negative images. The reverse is also true. A positive self-image can block access to threatening interpretations of social situations. When high socially anxious participants are

required to hold a confident image of themselves performing in an interview (Hirsch, Clark, Williams, Morrison & Mathews, 2005), the confident image blocked their access to the threatening interpretations of ambiguous social situations. This suggests that it may be easier for a socially anxious person to replace negative images with a more benign image, rather than attempting to stop the spontaneous generation of negative images *per se*. This has important implication for treatment. Clark and Wells (1995) have found that it is possible for people with social phobia to view their performance more positively and access more benign self-images following video feedback. The video feedback can show clients that their negative self-image is inaccurate, and this can reduce social phobia. Harvey, Clark, Ehers and Rapee (2000) have also found that video feedback can be used to help socially anxious individuals develop more accurate evaluations of their performance. It follows that training individuals to develop more compassionate self-evaluation and visual self-images may also reduce the perception of threat and result in more benign inferences. To date, no one has examined whether training patients to hold more compassionate self-images in social phobia can help to alleviate anxiety. However, given the converging evidence on the role of negative visual images in social phobia with the role of the compassionate mind approach (Gilbert & Irons, 2005), this would seem an important area for future research. Taken together, the evidence provides strong support for the role negative self-images play in the development and maintenance of social anxiety. Training socially anxious individuals to use accurate and compassionate self-imagery may reduce social anxiety, by facilitating a more realistic appraisal of both the self and the expectation of others in social situations.

2.7 Summary of the role a distorted negative view of self plays in social anxiety

As discussed, social phobia is maintained by a focus on negative self-appraisals. Self-focused attention (on the negative self-appraisals), in situation safety behaviour (behaviours which are used in an attempt to conceal anxiety) and anticipatory and post-event processing maintain the negative view of self in social situations. (See Brozovich & Heimberg, 2008 for a recent review of these processes). People with social phobia engage in these processes because they mistakenly believe that they will reduce the likelihood of their perceived negative attributes being observed by others (Clark & Wells, 1995). Therefore the motivation is to protect the self from threat, to reduce anxiety and to cope with the social situation. Unfortunately these strategies are not effective. Not only do they increase levels of social anxiety, trapping individuals into a vicious maintenance circle, but they also increase the likelihood of the feared consequences of exposing the negative self-image to others. This is because these processes raise anxiety levels for the individual and result in safety behaviours (e.g. appearing distant, avoiding eye contact, not saying much) that result in them being evaluated less positively than non-socially anxious individuals at least by some audiences. Engagement in these processes may lead to the very thing the socially anxious person fears most, namely, negative evaluation, rejection and loss of status.

In summary, models of social phobia agree that an individual with social phobia fears that his or her self attributes will be perceived as deficient (Moscovitiz, in press). The belief that the self is deficient and compares less favourably with others is also characteristic of low self-esteem, which is a measure of negative self-evaluation (Leary, 1990). Proposed reasons for this fear vary across models. Rapee & Heimberg

(1997) propose that socially anxious people fear that negative evaluation will result from this exposure. Leary (1990) proposes that the feared consequence is rejection. Gilbert (1995) proposes that the feared consequence is loss of status. Clark & Wells (1995) propose that socially anxious individuals fear that their behaviour will be judged as unacceptable. All of these feared consequences are also associated with low self-esteem. Social-evaluative situations are likely to pose a threat to self-concept, which can lead to feelings of anxiety and low self-esteem. A fear and expectation of negative evaluation from others in social situations is fundamental to social anxiety and low self-esteem. The next part of this review will focus on the relationship between social anxiety and self-esteem.

3. Self-esteem

Self-esteem is a commonly used concept that represents how individuals evaluate themselves, (Baumeister, Campbell, Kreuger & Vohs, 2003). Rosenberg (1965) has defined self-esteem "as a favourable or unfavourable attitude towards the self" (p. 15). Those with high self-esteem are likely to consider that they are meeting their own internal standards and comparing at least as well, if not better, than others. Those with low self-esteem are likely to consider that they are failing to meet their own internal standards and comparing unfavourably to others. Leary and Baumeister, (2000) have argued that humans have evolved to pursue self-esteem and some psychologists have argued that it is a universal need (Maslow, 1968; Rogers, 1961; Rosenberg, 1979). Some studies have found positive relationships between self-esteem and psychological health and well-being (See Baumeister et al, 2003 for a review of this research). However not all findings have been positive and this review will examine

possible explanations for the conflicting findings, focusing on the implications these might have for social anxiety.

3.1 Self-esteem and social anxiety

There are strong parallels between low self-esteem and high social anxiety. Both involve a fear of comparing unfavourably with others and a fear that a negative evaluation of self will lead to rejection from others. Leary et al (1995a) argues that although we would expect low self-esteem and high social anxiety to be highly related, we cannot assume a causal relationship. It is possible that they are both mediated by other variables. Leary et al (1995a) suggests that social anxiety and low self-esteem are both a consequence of the perception one has about being rejected in social situations. Self-esteem is viewed as an indicator of self-acceptance, with high levels of self-acceptance indicating higher self-esteem. Lower levels of self-esteem reflect negative views of self and can result in an increased vulnerability to threat of rejection. Social anxiety is thought to reflect fears of rejection and being perceived as unacceptable, which also underlies low self-esteem. As self-esteem is a measure of global self-evaluations it follows that those who make negative self-evaluations in social situations will experience low self-esteem in these same situations.

Traditionally, treatment programmes have been developed to help people increase self-esteem, on the understanding that this will improve psychological adjustment, reduce anxiety, and enhance confidence. Recent research suggests that high self-esteem does not necessarily lead to healthy psychological adjustment (Kernis, Abend, Goldman, Shrira, Paradise & Hampton, 2005). It does not always follow that individuals who report having high self-esteem are less fearful of rejection in social

situations. A focus on enhancing self-esteem can result in an increased focus on self-to-other comparisons, which can increase feelings of social isolation and competition and a concern of losing status and rank (Gilbert, 2005). As previously discussed, Gilbert's social mentality theory predicts that when the social rank mentality is activated, an individual is highly sensitive to social comparisons and views social situations as threatening, fearing that they will be found inferior. Instead of attempting to enhance self-esteem, Gilbert's social mentality theory suggests that social anxiety will reduce when the care-giving mentality is activated, as this will allow a more compassionate, authentic and co-operative response in social situations.

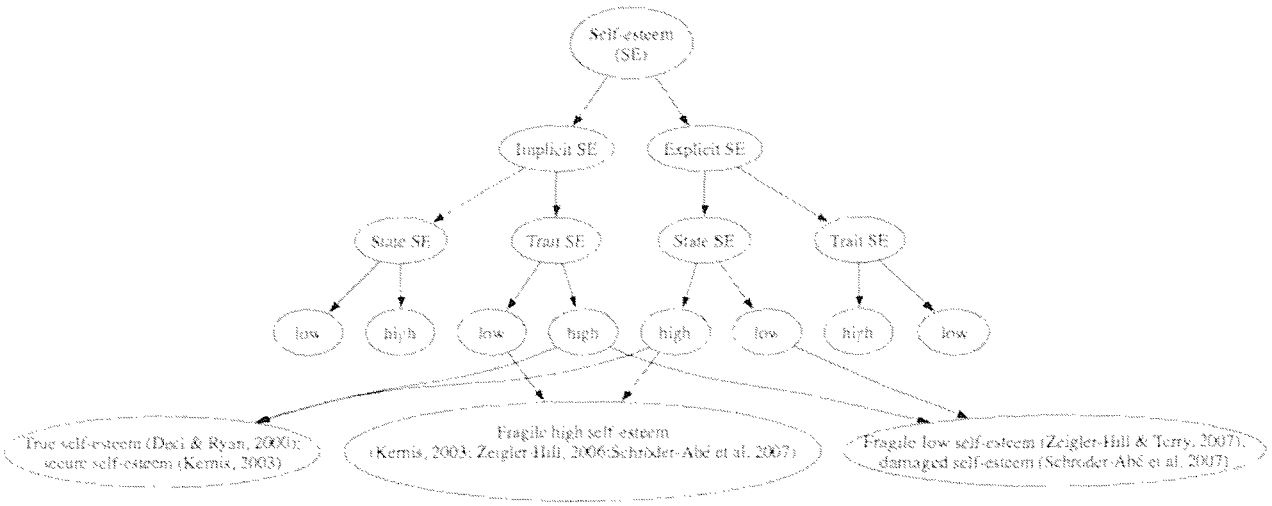
3.2 Costly pursuit of self-esteem

It has been argued that a preoccupation with raising levels of self-esteem can have distressing consequences. Crocker and Park (2004) argue that the importance of self-esteem is in terms of the processes and behaviours involved in pursuing it, rather than whether it is high or low. State self-esteem, defined as how good one feels about oneself in a particular moment, influences motivation because increases in self-esteem feel good and decreases in self-esteem feels bad. People are motivated to experience positive affect and avoid negative affect. One way of doing this is to boost state self-esteem levels above trait levels. This can be difficult for some people with high explicit self-esteem as even a slight failure can result in negative affect, when self-esteem falls (Neff, 2008). This can result in unstable, fragile self-esteem. In situations where success is uncertain a person may feel anxious and behave in ways which increase excuses for failure but also decrease chances of success, like self-handicapping behaviour or procrastination (Tice & Baumeister, 2006). A preoccupation with raising levels of self-esteem can lead people away from

experiences of competence, relatedness and autonomy and result in poor self regulation and poor health (Baumesiter & Leary, 1995; Crocker, 2002; Deci & Ryan, 2000). Kernis et al (2005) found that individuals who have unstable self-esteem are more vulnerable to depression and reflect on negative events in terms of the implications they have for self-worth. The process of maintaining self-esteem, which involves focusing on self-to-other comparisons, may lead to distortions and inaccurate self-perceptions, some of which appear to be similar to those found in people who have high levels of social anxiety. As we have discussed, socially anxious individuals often create distorted negative visual images of self, seen from the perspective of others. The negative self-image will maintain and increase negative self-evaluations and social anxiety (Clark & Well, 1995; Rapee & Heimberg, 1997).

In order to clarify why high self-esteem has been related to both psychological adjustment and maladjustment, Kernis (2003) has distinguished between *fragile high self-esteem* and *secure high self-esteem*. Fragile high self-esteem is contingent upon comparing favourably with others, in social evaluative situations. As we have seen this can result in social anxiety, and is likely to occur when the social rank mentality is activated (Gilbert, 2005). In contrast, individuals with secure self-esteem accept, value, and like themselves, despite their imperfections and performance in social evaluative situations (Kernis, 2003). When considering the distinction between fragile and secure self-esteem, Kernis (2003) has examined the role of conscious (explicit) and unconscious (implicit) feelings of self-worth. Therefore, in order to explore the role self-esteem may play in social anxiety, it is first necessary to examine the distinction between implicit and explicit self-esteem. Figure 1 shows how the different types of self-esteem relate to each other.

Figure 1: Diagram showing how the different kinds of self-esteem are related to each other and combine to produce fragile and secure self-esteem



3.3 Implicit and explicit self-esteem

It has been argued that some aspects of self-esteem are unavailable to conscious awareness, and self-evaluations may operate on an implicit level (Greenwald & Banaji, 1995; Koole, Dijksterhuis & van Knippenberg, 2001; Pelham, Mirenberg & Jones, 2002). Measures of implicit self-esteem have been developed in an attempt to explore those aspects of self-esteem that are unavailable to conscious awareness, including the Self-Esteem Implicit Associations test (SE-IAT: Greenwald, & Farnham, 2000). Implicit self-esteem is viewed as an automatic, non-conscious and over learned self-evaluation (Greenwald & Banaji, 1995; Pelman & Hetts, 1999; Zeigler-Hill; 2006). Zeigler-Hill (2006) has described how implicit self-esteem is

thought to reflect holistic and automatic processing of affective experiences (Bossom, Brown, Zeigler-Hill & Swann, 2003); which are partly derived from early experiences of social interactions, (DeHart, 2002).

In the main, low correlations have been observed between implicit and explicit measures of self-esteem (Bossom, Swann & Pennebaker, 2000; Bossom et al, 2003; Jordon, Spencer, Zanna, Hoshino-Browne & Correll, 2003; Spalding & Hardin, 1999), supporting the view that implicit self-esteem is a non-conscious self-evaluation which is not available for self-report. However, under some circumstances implicit and explicit measures of self-esteem have been related (Greenwald & Farnham, 2000; Hoffman, Gawronski, Le & Schmitt, 2005; Karpinski, Steinmen & Hilton, 2005). This makes the argument that implicit self-esteem is unconscious less robust. Rather than implicit self attitudes being viewed as the product of unconscious processes it may be that the automatic evaluation of self is first experienced as an affective response; if this response is seen as valid it will be translated into a propositional rule and expressed (Gawronski, Hofmann & Wilbur, 2006). In support of this, Epstein and Morling, (1995) have proposed a cognitive-experiential self theory that stipulates that implicit and explicit self-esteem are influenced by two distinct information processing systems. Explicit self-esteem is a product of rational and conscious processing of self-relevant information. Implicit self-esteem comes from intuitive, automatic processing of affective experiences, which is partly influenced by early experiences of social interactions (DeHart, 2002; DeHart, Pelham & Tennen, 2006). The lack of correspondence between implicit and explicit self-esteem measures may be due to an unwillingness or inability to report or acknowledge automatic evaluations. For the purposes of this review, it is necessary to examine the research examining

discrepancies between implicit and explicit self-esteem and the implications these may have for social anxiety. It will be argued that discrepancies lead to psychological maladjustment. If an individual is able to increase the congruence between implicit and explicit self-esteem, they will experience greater self-concept clarity and less self-doubt and anxiety in social situations (Schröder-Abé, Rudolph, Wiesner & Schutz, 2007). One avenue for increasing the congruence between implicit and explicit self-esteem, may be to validate one's initial affective response in social situations. This could lead to a more coherent and accepting self-view. It will be argued that enhancing self-compassion may reduce the discrepancies between implicit and explicit self-esteem, resulting in a more authentic view of self. First, the research on the implications for dissociation between implicit and explicit self-esteem will be explored in more detail.

3.4 Dissociation between implicit and explicit self-esteem

Recent research has suggested that the discrepancies between implicit and explicit self-esteem may impact on behaviour and reflect the stability of self-esteem. At the same time as high self-esteem being associated with emotional stability, (Robins, Hendin & Trzesniewski, 2001), highly positive self-views have been linked to defensiveness and aggressiveness (Baumeister, Smart & Boden, 1996). In an attempt to explain this contradiction Kernis, (2003) has distinguished between *fragile* and *secure* forms of high self-esteem. An exploration of the discrepancies between explicit and implicit self-esteem (Bossom et al., 2003; Jordon et al., 2003; Schroder-Abe, et al 2007a) have been conducted to examine this distinction. Two separate patterns of discrepant implicit/explicit self-esteem have been identified, namely; high

explicit: low implicit self-esteem; low explicit: high implicit self-esteem. To date, the focus has largely been on fragile high self-esteem (High explicit: low implicit), although more recently fragile low self-esteem (Zeigler-Hill; 2006), also known as damaged self-esteem (Schröder-Abé et al, 2007a) (low explicit: high implicit self-esteem) has also been examined. Additionally, it is also possible to have low implicit and low explicit self-esteem (congruent low self-esteem) or high implicit and high explicit self-esteem (congruent high self-esteem). Each pattern is thought to be related to different behaviours, with congruent high self-esteem being associated with psychological adjustment and well being, as summarised in Table 1. Research in this area is in its infancy and the majority of the empirical support for the theoretical proposals is correlational and cross sectional. There is a need for longitudinally designed experimental studies so that causality can be examined.

To date, research has examined the relationship between implicit and explicit self-esteem and depression (De Radet, Schacht, Franck & Houwer, 2006; Gemar, Segal, Sagrati & Kennedy, 2001), supporting the view that dissociations between implicit and explicit self-esteem may be markers of psychological maladjustment. Although recent studies have examined the differences between implicit and explicit self-esteem between socially anxious and non-socially anxious participants, an examination of the patterns of discrepancies has not yet been directly examined in social phobia.

However, Schröder-Abé et al (2007a) conducted two studies exploring whether discrepancies between implicit and explicit self-esteem are related to social feedback. They hypothesised that individuals with discrepant self-esteem would interpret ambiguous feedback more negatively than those with congruent self-esteem. They

found that those with high implicit, low explicit self esteem interpreted ambiguous scenarios more positively than individuals with congruent low self-esteem (low implicit: low explicit). Those with fragile self esteem (high explicit, low implicit) did not interpret the scenarios more positively than those with congruent high self-esteem (high implicit: high explicit).

To examine whether individuals with fragile self-esteem (high explicit: low implicit) would only respond defensively if their self-view was threatened, Schröder-Abé et al (2007a) conducted a second study, which manipulated social feedback, so that it was either rejecting or accepting. They predicted that participants with both forms of discrepant self-esteem would respond more defensively when in the rejection condition, in comparison to individuals with congruent self-esteem. The results supported the hypothesis that people with both forms of discrepant self-esteem are more defensive than individuals with congruent self-esteem. This was particularly the case for participants who were in the rejection condition. These results support the argument that individuals with fragile self-esteem function well until they experience set backs such as failure or rejection. When their self-esteem is threatened, defensive patterns are activated. Those with high implicit low explicit self-esteem behaved defensively in relatively neutral situations. It is possible that they are always trying to defend their self-esteem, perceiving it to be permanently under threat. Taken together, the evidence presents a strong argument in favour of the value of investigating implicit and explicit self-esteem in social anxiety. Rather than focusing on high or low implicit self-esteem it may be fruitful to focus on the degree of congruence between implicit and explicit self-esteem (self-esteem congruence).

Why might congruence between implicit and explicit self-esteem predict less anxiety in social situations? Higher correspondence between measures of implicit and explicit self-esteem may indicate a more consistent self-image (stronger self-concept clarity) which is less dependent upon external validation, and less vulnerable to threat. If self-image representations are balanced and accurate (free from distortions that can arise out of the processes used to enhance self-esteem, and reduce anxiety), the external environment and the cost of failure may be perceived as less threatening and harsh. It is possible that observed discrepancies occur when information has not had the opportunity to be processed and integrated into a coherent self-concept. An integrated self-image may be healthier for an individual, so long as the integration is based on accurate and realistic information processing. It is therefore important to look at the combined role of information processing and the content of self-concept. Self-concept coherence is not helpful if it based on inaccuracies and distortions.

3.5 Consequences of unstable self-esteem

So far, we have examined how dissociation between implicit and explicit self-esteem may result in a less integrated self-concept. As people are motivated to feel acceptable they may seek to enhance their self-esteem. We have discussed evidence suggesting that the pursuit of self-esteem can increase self-focused attention and activate the social rank mentalities (Gilbert, 2005). In this way, pursuing self-esteem is likely to be a risk factor for social anxiety, particularly if social anxiety is conceptualised as a fear that self-attributes will be perceived as deficient. Attempts to increase state self-esteem can lead to increases in self-focused attention, as people monitor their progress in terms of their high internal standards and the perceived high expectations of others. Feelings of self-worth become contingent upon the extent to which individuals' judge

that they are meeting or exceeding these standards. This can have an impact on self-regulation, as the individual is more likely to have an intense negative reaction to perceived criticism and to be highly self-critical. The environment can appear hostile and threatening when a person's social ranking mentality is activated (Gilbert, 2001), leaving the person feeling anxious and vulnerable. People may avoid situations where they are uncertain about their ability to be successful, which reduces opportunities to learn from experience. It follows that people with high self-esteem goals can become highly anxious (Dykman,1998). It would seem likely that this anxiety would increase in social situations when the person feels that he or she is being evaluated by others, and is at risk of making an undesirable impression.

3.6.Implicit and explicit self-esteem in social anxiety

As previously argued, evidence suggests that implicit and explicit self-esteem can predict behaviour in social situations. Spalding and Hardin, (1999) instructed participants to engage in an interview about themselves or an interview that was not related to themselves. Those with low implicit self-esteem were judged to appear more anxious during the interview about themselves than those with high implicit self-esteem. Explicit self-esteem did not predict how anxious they appeared (Devos & Banaji, 2003). Implicit and explicit self-esteem were uncorrelated. They concluded that implicit self-esteem may be a more accurate predictor of some aspects of anxious behaviour.

People with social anxiety have been observed to have low explicit self-esteem (de Jong, 2002). De Jong (2002) used the IAT in a study and found that although both

high and low socially anxiety participants had positive implicit self-esteem, those who were high in social anxiety, demonstrated a reduced tendency to self-favour, suggesting that this might be important in social anxiety. However, as depression was not examined, it was unclear whether differences in levels of depression may have explained the findings. Tanner, Stopa and De Houwer (2005) examined this in a study, which administered the IAT, following a social threat situation (giving a speech). Again, both high and low socially anxious participants were found to have an overall positive implicit self-esteem, but this was smaller in the socially anxious group, after controlling for levels of depression. This study did not examine the relationship between implicit and explicit self-esteem. Konstantinidi (2006) examined implicit and explicit self-esteem in socially anxious and non-socially anxious participants and found a significant negative correlation in the high socially anxious group when participants had been instructed to imagine a critical other in the IAT task, suggesting that this manipulation increased the discrepancy between implicit and explicit self-esteem. Asking someone to compare themselves to a very critical other is likely to be a threatening task.

The review of the literature suggests that the pursuit of increased self-esteem may actually trigger some of same processes that appear to maintain social anxiety; namely, increased self-focused attention, increased monitoring of threat and comparisons between self and others. Dissociation between implicit and explicit self-esteem reflects unstable, fragile self-esteem. We would therefore expect to find a discrepancy between implicit and explicit self-esteem in social anxiety. The reviewed research suggests that is important to examine the relationship between implicit and explicit self-esteem and social anxiety.

Table 1: Summary of research relevant to the dissociation between implicit and explicit self-esteem[1]

	Low implicit self-esteem	High implicit self-esteem
High explicit self-esteem	Theoretical concepts Fragile high self-esteem (Kernis, 2003; Zeigler-Hill, 2006) Defensive high self-esteem (Jordon et al, 2003) Discrepant high self-esteem (Zeigler-Hill, 2006) Narcissism (Brown & Bossom, 2001) Correlational studies Defensive Behaviour (Jordon et al, 2003, Studies 2 & 3) Aggression (Baumesiter, et al, 1996) Narcissistic personality (Jordon et al, 2003, study 1; Zeigler-Hill, 2006) Self aggrandisement (Bossom et al, 2003) Self-enhancement indicated by more unrealistic optimism, smaller actual-self discrepancies, stronger preference for positive personality descriptions (Bossom et al, 2003) Unstable self-esteem (Zeigler-Hill, 2006) Anger suppression (Schröder-Abé, Rudolph & Schutz, 2007b) Experimental studies Low implicit self esteem participants appear more anxious in interviews about themselves than participants with high implicit self-esteem (Spalding & Hardin, 1999)	Theoretical concepts True self-esteem (Deci & Ryan, 2000) Secure self-esteem (Kernis, 2003) A more integrated self-concept (Schröder-Abé et al (2007a) Self-esteem coherence (Govorun,, 2006) Self-compassion (Neff, 2003a) Correlational; studies Resilience and adaptive approaches to failure (Kernis, Cornell, Sun, Berry & Harlow, 1993) Approach goals Mastery orientation (Neff, Hseih & Dejitthirat,2005) Balanced reactions Greater well being and psychological health Stable self-esteem (Zeigler-Hill, 2006) Psychological adjustment (Govorun, 2006)
Low explicit self esteem	Theoretical concepts Congruent low self-esteem (but may be based on inaccuracies and distorted information processing) Correlational studies Less anger suppression than high implicit/low explicit (Schröder-Abé et al, 2007b) Experimental studies Negative interpretation of ambiguous events (Schröder-Abé et al, 2007a)	Theoretical concepts Discrepant low self-esteem (Zeigler-Hill, 2006) Damaged self-esteem (Schröder-Abé et al, 2007a) Correlational Studies Defensive (Jordon et al, 2003) Self-enhancement behaviour (Schröder-Abé et al 2007b) and more anger suppression Perfectionism (Zeigler-Hill & Terry, 2007) Experimental Studies More positive interpretation of ambiguous events that low explicit/low implicit (Schröder-Abé et al 2007) High social anxiety (de Jong, 2002) High risk of depressive relapse (Franck, De Raedt & De Houwer, 2007; De Raedt et al, 2006) Defensive in neutral situations (Schröder-Abé et al 2007a) Less self handicapping (Spalding & Hardin, 1999)

[1] The table has been subdivided into three types of evidence. The theoretical concepts have been listed some of which have been supported by correlational studies, although no claims can be made about causality. A few experimental studies have been conducted, using cross sectional designs. There is a clear need for further research in this area.

3.7 What is optimal for self-esteem?

Self-esteem predicts resilience and positive affect when it is stable and reflects a coherent implicit and explicit self-concept. Govorun (2006) views self-esteem coherence as "the congruence between implicitly and explicitly assessed self-evaluations, (p2). Kernis, et al., (1993) has suggested that optimal self-esteem is based on non contingent and stable self-evaluations. Deci and Ryan (1995) have also distinguished between *contingent self- esteem,* which is based on comparisons with others and external standards, and *true self-esteem*, which stems from self-determined action and reflects the authentic self. When there are large discrepancies between implicit and explicit views, self-esteem is likely to be contingent and people are likely to make comparisons between themselves and others, when evaluating themselves in social situations. This is relevant to social anxiety as social anxiety is increased when a person makes negative comparisons between themselves and others and considers that they are failing to meet external standards. As previously discussed, these standards are unrealistically high and based on distortions and a distorted negative view of self and negative visual self-images. It will be argued that rather than pursuing self-esteem, it may be more adaptive for socially anxious individuals to develop a more compassionate and realistic self-appraisal.

4. Self-Compassion

Self-esteem is one way to conceptualise a person's attitude towards the self. However, in the previous section we have seen that self-esteem can be problematic, particularly when there are discrepancies between implicit and explicit self-esteem or when self-esteem is contingent. An alternative way to conceptualise a person's attitude towards the self is through the construct of self-compassion. Neff (2003a) states that self-compassion involves "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness. Self-compassion also involves offering non-judgemental understanding to one's pain, inadequacies and failures, so that one's experience is seen as part of the larger human experience" (Neff 2003a, p. 87). This self-attitude concept has generated recent interest (Neff & Lamb, 2009; Neff, 2003a. 2003b; Gilbert & Irons, 2005; Leary, Tate, Adams & Allen, 2007). The next section of the review will examine self-compassion in more detail and argue how self-compassion is likely to influence the experience of social anxiety.

4.1 Definition of self-compassion

Neff (2003a) has outlined three components that form the self-compassion construct. They are, being "kind and understanding to oneself in instances of suffering or perceived inadequacy" (as opposed to being harshly self judgmental and self-critical), an awareness of common humanity, "recognising that pain and failure are unavoidable aspects of the shared human experience", (rather than seeing it as isolating and separating) and an ability to take an objective stance, which allows for a balanced awareness of emotions (mindfulness) (Neff et al, p.3.). Neff (2003b) has

developed a self-compassionate scale, which assesses six aspects of self-compassion, which reflect components of self-compassion: Self-Kindness, Self-Judgement, Common Humanity, Isolation, Mindfulness and Over-Identification. Neff and Lamb (in press) states that it measures the degree to which individuals display self-kindness versus self-judgement, common humanity versus isolation and mindfulness versus over- identification. As we have seen high social anxiety involves self-focused attention (over-identification), negative self-judgements (including negative visual images of self) and a sense that one is a separate entity and alone and isolated from others. Self-compassion with a focus on self-kindness and common humanity is likely to help counter the negative evaluations involved in social anxiety and low self-esteem. The next section will examine existing evidence for this.

4.2 Evidence that self-compassion might be useful and counter negative evaluation?

Self-compassion is negatively associated with anxiety, depression, self-criticism, and rumination (Neff, 2003b; Neff, Kirkpatrick & Rude, 2007a). Why might this be the case? Neff (2003a) proposes that self-compassionate individuals do not amplify and perpetuate painful experiences of failure by judging themselves harshly, isolating themselves or over-identifying with thoughts and emotions. Bates (2005) discusses how self-compassion may help people to resolve painful emotional states, particularly in the context of group therapy. The self is strengthened by facing what it previously avoided, and the individual no longer has to constantly monitor and suppress cognitions related to past trauma (Pennebaker, 1990). Building on the work of Winnicott (1965), Bates (2005) describes how "compassion facilitates the client exploring (processing) unintegrated elements of their inner experience until they can

be assembled and related to one another in an integrated manner that bestows a more coherent sense of self" (Bates, 2005, p, 380)[2]. Bates (2005) discusses a social anxiety programme that he has developed, based on Clark & Wells, (1995) model, which includes the mindfulness work of Kabat-Zinn, (1994) to "foster a compassionate response to anxiety symptoms that serves to contain and calm anxiety reactions" (Bates, 2005, p.370). They have used video feedback for clients, which helps challenge the distorted view of self in evaluative performance situations (Bates & Clark, 1998). This process can foster a more self-compassionate perspective, which helps individuals come to terms with their inner experience, allowing for a more coherent sense of self (Bates, 2005)[3].

Baer (2003) suggests that self-compassion plays an important role in the success of mindfulness based interventions. Mindfulness has been integrated into the treatment of depression (Teasdale, Segal, Williams, Ridgeway, Soulsby & Lau, 2000), borderline personality disorder (Linehan, 1993) and stress reduction (Kabat-Zinn, 1990). Mindfulness appears to impact on emotional regulation (Kabat-Zinn, 1990). Shapiro, Astin, Bishop and Cordova (2005) have found that mindfulness based stress reduction exercises increase levels of self-compassion. They found that self-compassion mediates the observed reduction in stress, in individuals who have participated in mindfulness based stress reduction programmes.

Compassionate self-images and compassionate mind training have been used in the work of Gilbert and Irons (2005) to work with shame and self-attacking. It has also

[2]. Previously, this review discussed how coherent implicit and explicit self-esteem may be a measure of a more coherent sense of self, and it would appear that this may have implications for the exploration of self-compassion.

been used by Lee (2005) when treating clients with posttraumatic stress disorder. It is yet to be applied to people with social anxiety. Given that a negative self-image and negative self-evaluations maintain social anxiety it can be predicted that increasing self-compassion would reduce social anxiety. Developing a compassionate view of oneself increases self-acceptance and self-kindness. This would help a distressed individual to self-soothe and regulate his or her emotions more effectively. Encouraging feelings of warmth for the self activates neurophysiological systems, outlined by Gilbert (1989; 1995; 2005) that will be examined in the next section.

4.3 What would models of social anxiety predict about self-compassion?

Gilbert's evolutionary model (Gilbert, 1989, 1995; 2005) (previously mentioned in section 2.1) draws on research of neurochemical systems. Recent technological advances have resulted in the availability of sophisticated brain imaging devises with which to study neurochemical systems and the relationship between brain structure and behaviour. However much of the data is correlational. Panskepp and Panskepp (2000) have written a critique of evolutionary psychology cautioning researchers not to ignore what is already know about the behaviour and brains of animals, as this is highly relevant to human neurochemical systems. Panksepp and Panksepp (2000) discuss how oxytocin and norepinephrine have been found to be important neural systems that mediate social attachments in animals (Panksepp, 1998). Oxytocin promotes maternal care and increases friendly relationships among individuals (Carter, 1998, in Panksepp & Panksepp, 2000). Gilbert's (1989) social mentality theory proposes that self-compassion activates the self-soothing system which is

[3] It would be interesting to examine whether the use of video feedback training would reduce the discrepancy between implicit and explicit self-esteem.

related to feelings of safeness, secure attachment and the oxytocin-opiate system. At the same time as activating the self-soothing system it deactivates the threat system, which is linked to defensiveness, insecurity and the limbic system. Self-esteem involves competitive evaluations of superiority- inferiority to establish social rank, and it is related to dopamine activation and energising, alerting signals (Gilbert & Iron, 2005; Neff, 2008). Gilbert proposes that self-compassion is associated with the self-soothing system of positive affect and is not contingent on comparisons between self and others. Instead it is based on self-acceptance, which is likely to lead to a more integrated view of self. Self-compassion can act as a protective factor. Monitoring self-esteem is likely to involve the threat and social rank system, whereas activating self-compassion involves the self-soothing system, and focuses on an objective view of self, which is not contingent upon the perception of others. Self-compassion also helps people feel more interconnected with others and less isolated (Gilbert & Irons, 2005). Attempts to maintain higher levels of self-esteem are likely to enhance an awareness of threat and increase anxiety. Conversely, attempts to enhance self-compassion are likely to deactivate the threat system and activate the care giving system, which will enhance feelings of safeness and security. The interested reader is referred to Gilbert (2006) for an exploration of the history of ideas on the evolution of mind, psychotherapy and neurochemical systems.

Neff (2008) discusses how a healthy sense of self can emerge from a growing appreciation of our interdependence with others and our environment, which develops from an awareness of the common humanity component of self-compassion. This is a central component of Buddhist philosophy. Neff (2008) explains how "by recognising our essential interdependence, failings and life difficulties do not have to be taken so

personally". (Neff, 2008, p. 7). This is in contrast to a separate sense of self that is distinct from others and "engenders a competitive mind-set in which the self's worth is judged and evaluated in comparison to others. This false sense of separation may lead to high self-esteem when the self succeeds, but when the self fails it can lead to harsh self-judgement, perceived isolation, and difficulty facing painful truths about oneself with clarity and balance" (Neff, 2008, p. 8). An appreciation of the interdependence between self and others is likely to reduce the perceived threat of social interactions and so reduce social anxiety.

4.4 Leary's self-presentation model

As previously mentioned in section 2.2, Leary's (1986; 2001) model of social anxiety predicts that social anxiety is created by an individual's fear that he or she is going to fail to make the desired impression on others. Self-compassion may reduce this threat, by encouraging a focus on one's shared humanity with others, and encouraging an attitude of self-kindness and acceptance, which is likely to reduce anxiety. While comparisons between oneself and others are a necessary part of defending or enhancing self-esteem they are not necessary for self-compassion.

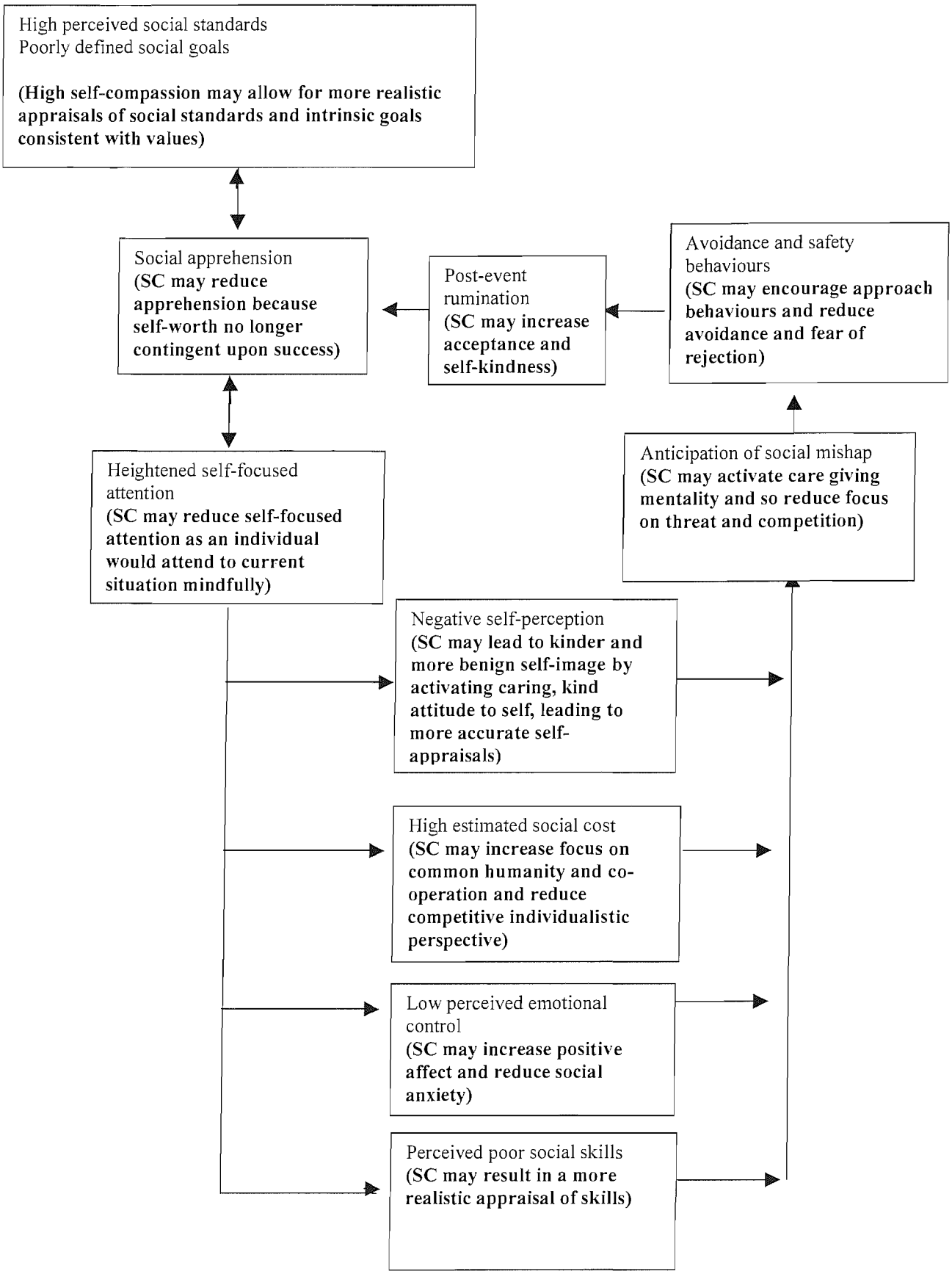
4.5 Information processing models of social anxiety

The information processing models of social anxiety discuss how social anxiety is maintained by a distorted and negative self-concept. When high socially anxious individuals enter a threatening social situation, they will monitor how they are presenting to others in that situation and shift their attention towards themselves (Chen, Ehlers, Clark, & Mansell, 2002; Stopa & Clark, 1993). Ingram (1990) has

suggested that this will have a detrimental impact on performance. A person may engage in increased self-focused attention, anticipatory anxiety and negative post event processing. These processes can maintain low self-esteem and drive social anxiety.

It is likely that self-compassion could have a beneficial impact on a number of stages in the cognitive models of social anxiety. To illustrate this, Figure 2 shows a modified version of Hofmann's (2007) information processing model of social anxiety, which labels the points at which a self-compassionate perspective might help an individual to break out of the vicious maintaining cycle of social anxiety. The quality of self-focused attention is likely to be different in someone who is highly compassionate as they may attend more mindfully and view themselves objectively and accurately. This may lead them to become more accepting and less self-critical, resulting in a more accurate visual self-image. Subsequently, there is likely to be a reduction in the perceived hostility of the environment, because of a focus on a shared common humanity, which signals co-operation rather than competition. Self-compassion could transform negative emotions allowing a clearer understanding of the immediate situation. The next section of this review aims to examine the processes involved in self-compassion and how they may have a beneficial effect on social anxiety.

Figure 2: Adapted version of Hofmann's (2007) maintenance model of social anxiety, illustrating where self-compassion (SC) might influence the key components



4.6 Processes involved in self-compassion, which may reduce social phobia

Self-compassion may act as an emotional regulation strategy (Neff, 2003a). Rather than avoiding distressing feelings, self-compassion may help individuals to perceive them with mindfulness. Brown and Ryan (2003) argue that mindfulness is a self-regulatory process.

Mindfulness is defined as the state of being attentive to and aware of what is taking place in the present (Brown & Ryan, 2003). Rumination and anxiety can pull attention away from what is happening in the present. *Mindlessness* (an absence of mindfulness) can occur when an individual defensively avoids attending to objects of perception. Public self-consciousness occurs when a person's attention is focused on how they are being perceived by others, and this pulls attention away from present awareness. Ryan and Deci (2000) have commented on the benefits of mindfulness in so far as it disengages individuals from automatic thoughts and unhelpful behavioural patterns, so that they are able to regulate their behaviour more effectively. This suggests that fostering mindfulness could reduce social anxiety, as it would help individuals attend to the present social situation without their attention being caught up in attending to a negative distorted image of how the individual fears they are presenting to others. This would also reduce anticipatory anxiety.

It is possible that mindfulness could increase awareness of implicitly activated emotions, which may subsequently reduce the discrepancy between implicit and explicit self-esteem. Brown and Ryan (2003) have developed a measure of

mindfulness, the Mindfulness Attention Awareness scale (MAAS), which has been used to examine links between mindfulness and well being. It has been found to correlate negatively with measures of depression and anxiety. It correlates positively with Rosenberg's self esteem scale (Rosenberg, 1965; 1979). Those who score high on the scale are less likely to be socially anxious or to ruminate. They are more aware of their inner experience and outward behaviour. The MAAS is related to lower anxiety and depression levels and associated with higher self-esteem and self-actualisation. It was also associated with the basic needs proposed in self-determination theory (Deci & Brown, 1985; Ryan & Deci, 2000), namely, relatedness, autonomy and competence. The self-determination theory proposes that an open awareness facilitates choosing behaviours and goals which are consistent with needs, values and interests, and it has been incorporated into the first information flow box of Hofmann's (2007) theory of social anxiety (See figure 2).

4.7 Relationship between self-compassion and self-esteem

Measures of self-esteem and self-compassion have been found to correlate positively (Leary et al, 2007; Neff, 2003b; Neff, Rude & Kirkpatrick 2007b). Neff and Vonk (2009) has argued that self-compassion may be a more important mediator than self-esteem, when predicting distress and maladjustment. Neff and Vonk (2009) conducted a large survey in the Netherlands, which examined the relationship between self-compassion, self-esteem and a number of maladaptive processes, including social comparison, self esteem contingency and instability, public self consciousness, rumination, reactive anger and narcissism. Regression analysis showed that self-compassion accounted for variance in the self-esteem contingency and instability,

social comparison, reactive anger, public self-consciousness and self-rumination, after the variance for self-esteem had been accounted for. Self-compassion was a stronger predictor than self-esteem in all cases except for narcissism.

Neff has suggested that self-compassion may be similar to true self-esteem (Deci & Ryan, 1995, 2000), which is similar to Kernis's (2003) secure self-esteem. True self-esteem is when self-worth is not contingent on set expectations or standards but instead it is an inherent part of being. Individuals high in self-acceptance might show evidence of congruence between implicit and explicit self-esteem. Self-compassion may reduce the discrepancy between implicit and explicit self-esteem by facilitating a more realistic view of self. Evidence suggests that mindfulness may play a role in enhancing true self-esteem and self-compassion.

4.8 Does mindfulness increase congruence between implicit and explicit self-esteem.

As discussed in section 3.4, the dissociation between implicit and explicit self-esteem can be a marker of psychological maladjustment. It is important to reflect on how individuals may become aware of their implicit processes and constructs (Wilson, Lindsay & Schooler, 2000).

Brown & Ryan (2003) have found that mindfulness moderates the concordance between implicit and explicit affect using the IAT. Mindfulness (as measured by MAAS) increased the relationship between implicit and explicit affect.
Further evidence in favour of self-compassion reducing the discrepancy between implicit and explicit self-esteem has come from the work of Govorum (2006), who

found that meditation appeared to increase the congruence between implicit and explicit assessments of self-esteem. She argued that this was because meditation encourages acceptance of self-feelings and facilitates encoding of automatic (implicit) evaluations as relevant. The automatic evaluations of self are accepted which can result in a more authentic and congruent self-evaluation, regardless of its valance.

Why would self-focused attention be negatively related to well being (Baumeister, 1998) and mindfulness positively related? Brown and Ryan (2003) suggest it is because mindful attention is non-evaluative and characterised by an open experience of what is there: "although mindfulness includes self-focused attention, it also includes an awareness of one's behaviour, experience, and the various stimuli encountered as part of waking reality" (p. 843). It is likely that the attitude with which one is attending is also important and self-compassion is a necessary part of mindfulness, (as mindfulness is a component of self-compassion). Kabat-Zinn (1990) has emphasised the accepting and non-judgemental nature of mindful awareness and attention. These form part of Neff's (2003a) conceptualisation of self-compassion.

In summary it would appear that self-compassion is a dimension of self-evaluation that has direct therapeutic implications, which may add to our understanding of social phobia. In particular, it seems that developing strategies to increase self-compassion, may have clinical utility in the treatment of social phobia, and could help to counter negative evaluation. Table 1 shows how the relationship between implicit and explicit self-esteem can have differential effects on behaviour. Dissociations between implicit and explicit self-esteem suggest psychological maladjustment. Congruent implicit and explicit self-esteem, particularly when it is based on accurate and unbiased

processing, appears to be associated with greater wellbeing. As the processes involved in self-compassion, for example, mindfulness, appears to increase objectivity and acceptance, this process could result in a greater integration of implicit and explicit self-views and a more realistic self-appraisal, which may reduce the perception of threat and counter negative evaluations. Increasing self-compassion may increase the coherence of implicit and explicit self-views, resulting in a more accepted and integrated self-view and a reduction in social anxiety.

5. Future research

An exploration of the role self-compassion plays in psychological problems has started, and the publication of a measure of self-compassion (Neff, 2003b) has meant that researchers can now examine the relative explanatory value of self-esteem and self-compassion for psychological adjustment. Research examining implicit and explicit self-esteem suggests that rather than focusing exclusively on self-report measures of self-esteem, it is also useful to examine implicit self-esteem and the relative congruence between implicit and explicit measures of self-esteem. It is possible that it would also be useful to examine implicit self-compassion, as the self-report measure is likely to be open to the same problems as explicit self-esteem measures.

In the same way that state measures of self-esteem have been developed it would be useful to develop state measures of self-compassion. These might be particularly useful when exploring the impact of self-compassionate induction on the processing of new information and the retrieval of stored representations of self.

If higher levels of self-compassion are associated with a more coherent, realistic and authentic self-concept, then we would expect that those low in self-compassion to show a higher dissociation between implicit and explicit systems indicating less integrated self-concepts. Attempts to raise levels of self-compassion may be more beneficial than attempts to increase self-esteem. Attempts to raise levels of self-esteem have been associated with detrimental effects on psychological health (Crocker & Park, 2004). Processes involved in attempts to maintain self-esteem link to the same processes that are used by people when they are monitoring threat in social situations, e.g. self-focused attention. These can exacerbate social anxiety and unstable self-esteem. Alternatively, increasing levels of self-compassion, involve mindfulness, acceptance, self-kindness, and a sense of the self as part of humanity. Rather than increasing perceptions of the threat, rejection and isolation, this may enable an individual to accept their fears and approach social evaluative situations, increasing opportunities to learn from experience. In turn, a more authentic view of self may arise, resulting in more satisfying interpersonal relationships.

While studies have directly examined the relationship between explicit self-esteem and self-compassion, I am unaware of any research that has examined the relationship between implicit self-esteem and self-compassion. However, research suggests that meditation can decrease the discrepancy between implicit and explicit self-esteem (Govorun, 2006).

Furthermore it would be interesting to examine the role self-compassion may play in social anxiety. Figure 2 shows a recent model of social anxiety (Hofmann, 2007), which has been adapted to include the hypothesised role self-compassion might play

on each stage of the information processing model. A research programme could systematically examine each of these hypotheses. For example, it is possible that self-compassion would influence self-images in social anxiety. Self-compassionate imagery has been found to have a beneficial effect in the areas of self-criticism (Gilbert & Irons, 2004), which suggests that it may play an important role in social anxiety. Research into the role self-compassion might play in psychological disorders is in its infancy, but early findings suggests that it will a fruitful endeavour.

6. Conclusion

Self-compassion fosters positive emotion to oneself while simultaneously maintaining a sense of connection with others (Neff, 2003a). For this reason it is anticipated that self-compassionate processes would reduce the distressing experience of social anxiety. A self-compassionate person is likely to hold a more coherent and integrated self-concept that may be characterised by a more concordant implicit and explicit view of self.

7. References

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Empirical Paper

The Impact of an Experimentally Induced Self-Compassionate Perspective on Implicit and Explicit Self-Esteem, in a Socially Anxious Analogue Group

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Prepared for submission to *Behavioural Research and Therapy*

Abstract

The aim of this study is to examine the effects of a self-compassionate induction on implicit and explicit self-esteem, in a socially anxious analogue group. Additionally, the study aims to see if this self-compassionate induction will influence the vividness and valence of spontaneously generated visual self-images that occur in response to giving a two-minute speech.

Sixty-three socially anxious participants gave a two-minute speech and were then randomly assigned to one of three conditions (a self-compassionate group, an emotional processing group and a control group). Each group was given a different written task, designed to manipulate how they processed their speech. Following the experimental manipulation (written task) they completed a number of outcome measures including the Implicit Association Test (IAT), state and trait self-esteem measures and a measure designed to examine the valence and vividness of the participant's spontaneously generated visual self- images.

There were no significant mean differences between the three conditions, indicating that the self-compassionate induction did not lead to significant increases in implicit or explicit self-esteem. However an interesting pattern of significant correlations emerged, which suggest that the self-compassionate induction may have reduced the discrepancy between implicit and explicit self-esteem. The self-compassionate induction did not have a significant impact on the valence and vividness of visual self-images. The results of this study are discussed along with ideas for future studies.

Key words: social phobia, social anxiety, self-compassion, self-esteem, implicit self-esteem.

1. Introduction

The focus of this paper will be on examining the ways in which self-compassion may help to ameliorate social anxiety. Neff, Kirkpatrick and Rude (2007a) have defined self-compassion as "being kind towards oneself in instances of pain or failure; perceiving one's experiences as part of the larger human experience; and holding painful thoughts and feelings in balanced awareness" (Neff et al, 2007a, p. 139). To date, the relationship between self-compassion and social phobia has not been examined. If a distorted and dysfunctional view of self, which is then judged harshly by the individual, is a key maintaining factor in social phobia, then changing the person's attitude to self, (by developing a more compassionate view of self) should reduce social anxiety. As self-compassion involves people accepting and being kind to themselves despite their failings (Neff, 2003a), increases in self-compassion should be particularly beneficial for socially anxious people who are relentless self-critics. It is also possible that more compassionate views of self, will lead to more stable self-esteem and this in turn could foster resilience and make people better able to cope with failure.

Models of social anxiety (Clark &Wells, 1995; Leary, 1990; Leary & Kowalski, 1995 , Rapee & Heinberg, 1997; and most recently Hofmann, 2007) propose that social anxiety is characterised by negative evaluations about the self and a fear of being rejected in social situations. Information processing models highlight the importance of negative thoughts and beliefs about the self (Stopa & Clark, 1993) and negative visual images of self (Hackman, Surawy & Clark, 1998; Hirsch & Holmes, 2007) in maintaining social anxiety.

Social anxiety is also associated with low self-esteem (Baumeister, Campbell, Krueger & Vohs, 2003; Leary, Schreindorfer & Haupt, 1995). The negative view of self, found in socially anxious individuals, is thought to reflect negative self-evaluations, which have been traditionally measured with self-esteem scales. However negative views of the self can also reflect low self-compassion. Neff (2003b) has developed a self-compassionate scale, which provides a measure of this alternative conceptualisation of the self. This scale has been used in research that examines self-compassion and its relationship to self-esteem. Neff (2003a) has found that self-compassion is negatively associated with anxiety, depression, self-criticism, rumination, thought suppression and perfectionism. Leary, Tate, Adams, Allen and Hancock (2007) have concluded that many concomitants of trait self-esteem, such as anxiety and depression may be more accurately understood as a function of self-compassion.

Self-compassionate people have been found to have high self-esteem (Neff, 2003a; Leary et al, 2007). However, self-compassion is related to measures of "emotional, cognitive and behavioural reactivity independently of self-esteem" (Leary et al, 1997, p. 892). Leary et al (2007) examined participants' reactions to hypothetical scenarios, such as, forgetting one's part in a play and getting a poor grade in a test. Participants were asked to rate how they would feel, think and react in these scenarios. Individuals who had high self-compassion were more likely to predict that they would react calmly and have less personalising and catastrophising thoughts in response to the situations. Leary et al (2007) concluded that self-compassion is an important construct that may account for effects that have previously been assumed to

be due to high self-esteem. In support of this, Neff et al (2007a) found that self-compassion helped protect against self-evaluative anxiety, in a mock interview task. Self-esteem did not appear to offer the same protection against anxiety. This highlights the distinction between self-esteem and self-compassion. Self-esteem is based on evaluations of self-worth which are based on social comparisons; Self-compassion involves feelings of kindness and acceptance directed at the self (Gilbert & Irons, 2005; Neff, 2003a,b), and a balanced perspective, in the face of challenging social situations. It embraces a sense of interpersonal relatedness, rather than isolation and competition.

How might self-compassion be integrated into existing information processing models of social anxiety? Hofmann (2007) has developed the most recent cognitive model of social anxiety, which is consistent with and builds upon previous information processing models of social anxiety (Clark & Wells, 1995; Rapee & Heimberg, 1997). Hofmann's model proposes that unrealistic social standards result in social apprehension. When faced with challenging social situation, socially anxious individuals engage in self-focused attention and view themselves negatively. They overestimate the perceived consequences of performing poorly and fear that they are unable to cope. In response to this threat, they adopt maladaptive coping strategies, such as avoidance or safety behaviours, which have a negative impact on their performance and increase their social apprehension. Following the social situation, socially anxious individuals engage in post event rumination, which further increases their fear of future social situations. Price (in preparation) has adapted Hofmann's (2007) model of social anxiety, to illustrate the possible moderating impact of self-compassion on the processes that maintain social anxiety. Self-compassion may

moderate social anxiety at every stage of the model. For example, self-appraisals are likely to be less critical and harsh, when taking a warm compassionate attitude to one's failings. This may reduce biased and distorted thinking and negative affect. Recognising that mistakes, failings and distressing situations are an inevitable part of the human condition, may reduce a sense of isolation and result in approach behaviours, rather than avoidance behaviours. A more balanced perspective can lead to more realistic self-appraisals and increased resilience. A self-compassionate perspective, involves an objective and realistic appraisal of events and a more accurate self-view. This is likely to reduce negative post event processing. Further research could examine each of these areas. Initial evidence suggests that self-compassion can protect against social evaluative concerns in non-socially anxious individuals (Neff et al, 2007a; Leary et al, 2007). This has yet to be tested empirically with a socially anxious population.

When examining the relationship between social anxiety and self-esteem it has been assumed that the valance of an individual's self-view is likely to be reflected in measures of self-esteem. However, it has been argued that the self-evaluations measured by self-esteem inventories may not provide a full picture. A distinction has been made between implicit and explicit self-esteem where implicit self-esteem has been defined as an "individual's overlearned, automatic and non-conscious self-evaluation" (Greenwald and Banaji, 1995). Recent research has highlighted the importance of examining the relationship between implicit and explicit self-esteem in psychological disorders (Colvin, Block & Funder, 1995; Schröder-Abé, Rudolph, Wiesner & Schutz, 2007), although this has yet to be extended to the study of social phobia.

A lack of correspondence between implicit and explicit measures of self-esteem has been associated with psychological maladjustment and *fragile* self-esteem (Kernis, 2003). A greater correspondence between implicit and explicit self-views has been associated with *stable optimal* self-esteem (Kernis, 2003) or *true self-esteem*, (Deci & Ryan, 2000). Neff (2003a,b) has stated that the concept of self-compassion has much in common with true self-esteem. Processes involved in self-compassion may reduce discrepancies between implicitly and explicitly held self-views. Rather than needing to respond to set backs defensively, a caring and accepting attitude will allow a more balanced and accurate acknowledgement of the situation, and one's role within it, resulting in unbiased processing that could over time result in a more integrated and accurate self-concept. As self-compassion involves accepting the self, even in the face of failure and disappointment, it may be particularly helpful for individuals who have low self-esteem or fragile self-esteem (Leary et al, 2007).

Correlational studies suggest that self-esteem and self-compassion are highly related. However, high levels of self-esteem have been uniquely associated with narcissism (Neff, 2003a; Leary et al, 2007) and defensiveness (Leary et al, 2007). As seen, defensive behaviour occurs when there are discrepancies between implicit and explicit self-esteem. If self-compassion helps a person develop and maintain a stable self-concept, even in the face of difficulties, we would expect to find a positive relationship between congruent implicit and explicit self-esteem and self-compassion.

The relationship between implicit and explicit self-esteem and social anxiety does not appear to be straightforward. People with social phobia report low (explicit)

self-esteem (de Jong, 2002). Individuals with high social anxiety retain the same high implicit self-esteem that has been found in people without social anxiety. However, this normal positive implicit self-esteem bias is weaker in individuals with high social anxiety (de Jong, 2002; Tanner, Stopa & De Houwer, 2006). The relationship between implicit self-esteem and self-compassion has not been empirically examined.

The discrepancy between implicit and explicit self-esteem suggests a less integrated self-concept, which could result in self-worth becoming contingent on the attainment of specific outcomes, which would increase vulnerability to the perceived threat of failure and social anxiety. As discussed, a self-compassionate perspective involves viewing oneself objectively with a kindly attitude. Rather than exaggerating or avoiding negative affect, self-compassion may help individuals to value themselves, even when they fail to achieve their goals. This may help align implicit and explicit views and increase the stability of self-esteem.

Self-compassion involves the process of mindfulness. Shapiro, Astin, Bishop and Cordova (2005) have described mindfulness as a state in which one's awareness is focused on the present moment, rather than being distracted by thoughts, emotions and reactions to circumstances. It involves an objective awareness of the present moment, untarnished by judgements and self-evaluations (Bishop, Lau, Shapiro, Carlson & Anderson, 2004). This suggests that mindfulness may reduce social anxiety. Mindfulness involves an ability to disengage from negative patterns of information processing, and is distinct from the self-focused attention that characterises, social anxiety. Rather than attempting to avoid or suppress cognitions and emotional responses, it involves a loving kindly acknowledgement of them.

Therefore, challenging social situations are less likely to threaten an individual's sense of self worth, and the maintaining cycle of social anxiety can be broken. Self-compassion, (through the processes of mindfulness, the awareness of the interconnectedness between self and others and a kindly accepting attitude towards the self in the face of difficulties), may help to align implicit and explicit attitudes to self, leading to a more balanced, accurate and coherent self-concept. This has yet to be tested empirically, although Govorun (2006) has found that people who practice meditation have congruent implicit and explicit self-esteem, reflecting stable self-esteem. A first step would be to examine how self-compassion influences implicit and explicit self-esteem in socially anxious participants.

Research on self-compassion has examined the differences between people who have high and low self-compassion, as measured by the Self-Compassion Scale (Neff, 2003b). However Leary et al (2007) report a study demonstrating that it is possible to induce a self-compassionate state. Leary et al (2007) conducted a series of studies examining the concept of self-compassion and how it moderates people's responses to negative events and interpersonal feedback. They found evidence to suggest that self-compassion can moderate the relationship between trait self-esteem and reactions to interpersonal feedback. They report a study in which they were able to experimentally induce a self-compassionate perspective. They compared the effects of state self-compassion with trait self-compassion and examined differences in the effects of inducing self-esteem versus self-compassion. All participants were initially required to write about an event from their past, involving failure, humiliation or rejection, which had led them to feel badly about themselves. They were then randomly assigned to one of four groups: a self-compassionate induction (which

involved writing in response to three written prompts which tapped into three components of self-compassion; self-kindness, common humanity and mindfulness); a self-esteem induction, (responding to prompts designed to lead participants to feel good about themselves); a writing control condition (when they were instructed to "really let go" and explore their deepest emotions as they explored the event) and a control condition (which involved completing the dependant measures). Participants exposed to the self-compassionate induction, reported lower negative affect, in comparison to the other three conditions. The self-compassion induction also increased how similar participants thought they were to other people, particularly for those participants who were lower in trait self-compassion. This demonstrated that it is possible to induce a self-compassionate state by instructing people to think about negative past events in terms of self-kindness, common humanity and mindful acceptance. This indicates that it may also be possible to induce a self-compassionate state in other populations. As self-compassion involves people being kind to themselves despite their failings, increases in self-compassion should be particularly beneficial for socially anxious individuals, who hold negative and distorted self-images.

This study aims to examine the impact of Leary et al's (2007) self-compassionate induction on implicit and explicit self-esteem, in socially anxious participants. Socially anxious participants were required to give a two-minute speech. They were then randomly assigned to one of three conditions. The self-compassionate condition required participant's to respond in writing, to three written prompts, based on Neff's three components of self-compassion (self-kindness, common humanity and mindful acceptance). The written exercise was designed to help participants to think about a

speech that they had given, in terms of self-kindness, common humanity and mindful acceptance. The emotional processing condition required participants to really let go and explore their deepest emotions about their experience of giving the speech. It was included as a control for emotional processing, as Pennebaker, Colder and Sharp, (1990) have found that writing about negative events in a self-disclosing manner can reduce negative emotions. The final control condition involved participant's reflecting on their experience of giving the speech as they normally would before writing down their thoughts and feelings about the speech.

This study aimed to examine whether three independent groups of participants with high social anxiety, as measured by the Social Interaction Anxiety Scale (SAIS; Mattick & Clarke, 1997), differ in levels of implicit and explicit self-esteem, when they are encouraged to process their performance following a speech in a self-compassionate manner (self-compassion condition) in comparison to two control groups (emotional processing and normal processing). We hypothesised that the self-compassionate induction would result in more positive evaluations of self, as measured by an explicit measure of state self-esteem and a measure of implicit self-esteem., in comparison to those in the other two control groups. Higher scores on these measures would indicate more positive self-views.

Congruent self-esteem would be reflected by a high correlation between implicit and explicit measures of self-esteem. If the self-compassionate induction increases self-esteem congruence, we would expect a high correlation between implicit and explicit self-esteem for the self-compassionate group only.

A second aim was to test whether a self-compassionate induction reduces the negativity and vividness of visual self-images. We hypothesised that participants with high social anxiety will show a reduction in the vividness and negative valance of their visual self-images, following the self-compassionate induction, in comparison to the control conditions.

Finally we predict that the self-compassionate induction would decrease the experience of anxiety, in comparison to the control groups.

1.2 Research Hypotheses

The following hypotheses will be tested:

1) Those in the self-compassion group will have higher implicit and explicit self-esteem scores than participants in the emotional processing and normal processing control groups.
2) Those in the self-compassion group will show a correspondence between their implicit and explicit self-esteem, as indicated by a positive correlation between these measures.
3) Those in the self-compassionate group will show a greater reduction in their pre and post self-image vividness and valence scores, in comparison to the two control groups.
4) Those in the self-compassionate group will show a greater reduction in their anxiety, in comparison to the other two control groups.

2. Method

Approval for this study was granted by the School of Psychology Ethics Committee (see appendix A).

2.1 Design

The experiment was run as part of a larger study (Thomas, 2008) and so there were aspects of the procedure that were not relevant to this study. A full protocol highlighting the differences between the two studies is shown in Appendix B. The protocol also indicates when participants were asked to fill out additional measures which were not relevant to this study.

The study used a mixed design with was one between-subjects factors (group: self-compassion, emotional processing control and normal processing control) and three within subject factors. The within subject factors were situational anxiety as measured by the State-Trait Anxiety Inventory; (STAI Trait; Speilberger, Gorsuch & Lushene, 1983), with three levels (STAI- State1; prior to speech, STAI- State2; immediately after speech; STAI- State3, following the experimental manipulation) and self-image valance and vividness, both with two levels (immediately after speech and following the experimental manipulation).

Prior to being assigned to experimental groups, all of the participants completed the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1997) to establish that they were highly socially anxious. The Beck Depression Inventory (BDI-11; Beck, Steer, & Brown, 1996) was also administered in order to examine

whether any observed effects were related to depression scores, as social phobia and depressive symptoms have a high rate of co-morbidity (Schneier, Johnson, Hornig, Leibowitz & Weissman, 1992). The STAI and initial self-image measure were also administered prior to the experimental manipulation. Following the experimental manipulations all participants completed the Self-Esteem Implicit Association Test (SE: IAT; Greenwald & Farnham, 2000), to measure implicit self-esteem. Participants then completed a number of dependent measures, the order of which were counterbalanced. These included state explicit self-esteem (SSES; McFarland & Ross, 1982), self-image vividness and valence and STAI State anxiety. At the end of the study all participants completed the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) and the Self-Liking Self–Competence trait scales of self-esteem (SLSC; Tafarodi & Swann, 1995). They also completed Neff's Self-Compassion Scale (SCS; Neff, 2003b). We chose to administer these trait measures at the end of the study, so that they did not influence the experimental manipulation. As they were trait measures they were not chosen as outcome measures. As the high socially anxious participants were randomly assigned to the three conditions it was not anticipated that they would differ significantly from each other on these measures at the beginning of the study.

A between subject design was chosen to prevent contamination of the three different types of processing (self-compassionate, emotional and normal processing). A within subject design would not have been possible because of the problem of practice effects on the IAT, the speech and the possible contaminating carry over effects from previous instructions. Because we only have the post intervention scores for self-esteem and self-compassion we would not be able to conclude that the self-

compassionate induction increased the congruence between implicit and explicit self-esteem.

2.2 Participants

Participants were 63 students and employees at the University of Southampton who were recruited from a larger sample of 456 students and staff who had completed the Social Interaction Anxiety Scale (SIAS: Mattick & Clarke, 1997). The scale was used to select individuals who had scores of 29 or greater, which is 1 *S.D.* above the student mean on the SIAS measure. The sample consisted of 23 males and 40 females with a mean SIAS score of 37.4, and a *S.D.* of 8.1. They ranged in age from 18 to 54 years (mean age = 22.62, *S.D.*= 7.56). Twenty-one individuals were in each of the three experimental groups. The self-compassion group consisted of 7 males and 14 females (mean SIAS = 36.2; *S.D.* = 6.26), who ranged in age from 18 to 54 years (mean age of the self-compassion group was 23.9 years, *S.D.* = 10.3). The emotional processing group (mean SIAS = 38.24, *S.D.* = 10.13) consisted of 7 males and 14 females (mean age 22.23 years; *S.D.* = 7.23). The control group (mean SIAS = 37.76, *S.D.* = 7.62) consisted of 9 males and 12 females (mean age 21.66 years; *S.D.* = 3.98). Participants took part in the study for course credit or payment of £7-50.

2.3 Measures

The Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1997) is a 20-item self-report measure of social anxiety, which was used to screen participants. For each item,

respondents are asked to indicate how much each statement is characteristically true of them on a five-point Likert rating scale ranging from not at all to extremely. The scale has good internal consistency, $\alpha = .93$, and good test-retest reliability, $r = .92$ (Mattick & Clarke, 1997). Higher scores indicate more social anxiety. Cronbach's α of .75 was obtained in this current sample.

2.3.1 Measures of Anxiety and Depression

The Beck Depression Inventory, second edition (BDI-II; Beck, Steer, & Brown, 1996) is a revised version of the original BDI (Beck, Rush, Shaw & Emery, 1979). It is a 21-item, four choice inventory designed to assess levels of depression, over the past two weeks, and has been used with a variety of clinical populations (see Beck and Steer, 1984). Scores range from 0-63. It has good reliability and validity and internal consistency (α =.92 in outpatients; $\alpha = .93$ in college students, (Beck, Steer, & Garbin, 1988). Cronbach's α of .94 was obtained in this current sample.

The State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, 1983) is a two scale self report instrument used to measure state and trait anxiety. High scores reflect higher levels of state and trait anxiety. The trait anxiety scale has test-retest reliability coefficients ranging from .73 - .86 (Speilberger et al., 1983). The concurrent validity with other anxiety scales ranges from .73 - .85 (Speilberger et al., 1983). The state-anxiety scale has far lower test retest reliability (ranging from .16 to .62), as is expected of a scale that is designed to reflect transient situational influences. In this sample, Cronbach's α of .91 was obtained for the first administration of STAI State. On the second administration Cronbach's α was .94 and

in the final administration Cronbach's α was .94. Cronbach's α of .93 was obtained for the STAI Trait measure.

2.3.2 Self-Esteem Measures

The Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965) is a global measure of self-esteem. It is a 10-item self-report inventory, which asks participants to respond using a four-point scale, ranging from, 0, strongly disagree, to 3, strongly agree. The scale ranges from 0-30. Scores between 15 and 25 are within the normal range; scores below 15 suggest low self-esteem. The RSE is commonly used, reliable and valid (see Blascovich & Tomaka, 1991). In this sample, Cronbach's α of .91 was obtained.

State Self –Esteem scale (SSES; McFarland & Ross, 1982)

This is a 12-item scale, comprising of two sub scales (positive state self-esteem and negative state self-esteem), designed to measure state self-esteem. Participants are asked to rate each of 12 attribute words on an 11 point Likert scale, ranging from 1 "Not at all" to 11 "Extremely". It contains an equal number of positive and negative attributes. Examples of positive attributes are 'competent', 'confident' 'pride', 'smart' 'resourceful', 'effective' and 'efficient'. Examples of negative attributes are 'ashamed', 'worthless', 'stupid', 'incompetent', 'inadequate' and 'pride'. In this sample, Cronbach's α of .95 was obtained for positive state self-esteem and .92 for negative state self-esteem.

Self- Liking/ Self-Competence Scale (SLSC: Tafarodi & Swann, 1995) is a two scale self-report instrument measuring self-liking and self-competence. Each scale has 10 items which consist of an equal number of positive and negative statements, (e.g. "I feel good about who I am", "I feel worthless at times", "I am talented", "I am not

very competent". Participants respond using a 5 point likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Each subscale has a possible scoring range of 10-50. High internal consistency has been found for the self –liking scale (.92) and the self-competence scale (.89), (Tafarodi & Swann, 1995). In this sample, similarly high internal consistencies were found; (Cronbach's α of .91 for the self-liking scale and 0.78 for the self-competence scale). Test re-test reliability is also high over a three week interval (.8 for Self-Liking; .78 for Self-Competence), (Tafarodi & Swann, 1995).

2.3.3 Implicit Measures

The self-esteem specific Implicit Association Task, (SE-IAT: Greenwald, & Farnham, 2000) is a computer based reaction time measure that assesses the relative strength of association between two concept categories. The more closely related the two concepts are, the easier and quicker it will be to respond to them as a single unit. The time taken to respond to a pair of concepts measures the strength of the association between the two concepts. If concepts are dissociated, response times will be slower. To measure implicit self-esteem participants are asked to respond as quickly as they can by pressing one of two response buttons, in response to a word which appears in a fixed position on the computer screen. The categories of stimuli used were "Me", "Not Me", "Positive" and "Negative". The IAT has reasonable test-retest reliability (r = .69) and good internal consistency values (α = .80; Bosson, Swann & Pennebaker, 2000). For this sample, high internal consistency values were found (Cronbach's α of .97).

The IAT program was written in Visual C# and used DirectX to present stimuli and log responses. The font was a scalable DirectX font, which was scaled programmatically to provide the best fit for the screen resolution in use. The laptop display refreshed at 60Hz. The IAT was administered on an Ergo, Preceptor 601 laptop computer using a black background screen. General instructions appeared on the screen and participants could move forward and backward through them as required. Each participant was instructed to type his or her name, which then became a stimulus. Each block appeared on the screen with the category words positioned in the left and right hand top corners in capital letters. The words to be categorised appeared in the middle of the screen in upper case. A response box comprising of two buttons was attached to the computer and participants were instructed to hold it and to press one of the two response buttons in response to the IAT stimuli.

2.3.4 Self-esteem IAT paradigm (SE-IAT)

The SE-IAT involved pairing *positive* and *negative* attribute concept words with target concepts of *'me'* and *'not me'*. The same words were used for all participants (apart from the participant's name), and were presented randomly within each trial. These stimuli had been selected and used previously by Tanner et al., (2006).

The 'positive' words were: secure, likeable, clever, interesting, confident, accepted, loveable and worthy. The 'negative' words were: boring, stupid, worthless, incompetent, disliked, ridiculous, inferior and useless. The 'self' words were: me, I, mine and the participant's name. The 'other' words were: them, they, his and hers.

The presentation of the blocks was counterbalanced across the groups to reduce possible task order effects. The order of the presentation of the IAT tasks was counterbalanced in one of two orders. An example of one order is shown in table 1.

Table 1: Presentation of IAT stimuli – order 1

Left hand response	**Categorisation word - presented randomly one at a time**	**Right hand response**
Practice block 1: *16 Trials*		
not me	Words from either the "me" or "not me" list	me
Practice block 2: *16 Trials*		
negative word	Words from either the positive or negative word list	positive word
Test block 3: *56 Trials* ***(16 practice and 40 test trials)***		
not me (or) negative word	Words from any of the previously presented four lists *(congruent)*	me (or) positive word
Practice block 4: *16 Trials*		
me	As practice block 1 (reversed)	not me
Test block 5: *56 Trials* ***(16 practice and 40 test trials)***		
me (or) negative word	As measurement block 1 (reversed) *(incongruent)*	not me (or) positive word

2.3.5 IAT data reduction

Blocks 3 and 5 were the test blocks and the data from these blocks were transformed following the improved scoring algorithm (see Greenwald, Nosek, & Banaji, 2003, for a full description). In summary, 56 response trials from test blocks 3 and 5 were used. Error trials were replaced with the block mean and an automatic penalty applied. Blocks with trials exceeding 10,000ms and with more than 10 percent of trials less than 300ms were excluded. A difference score was calculated between the mean scores on the two critical blocks. This was then divided by the standard deviation of the trials across both blocks (incongruent block – congruent block divided by the pooled standard deviation for the two blocks). The score obtained is the IAT-D effect.

The standard interpretation of the self-esteem IAT is that it measures the associations one has with the self. If a person has positive associations with the self (high implicit self-esteem), then the self and positive (and the other and negative) block should be easy and response times ought to be fast. Likewise, the self and negative (and the other and positive) block should be more difficult and response times ought to be slow. As a result, participants with predominantly positive self-associations are faster to respond on the *me* and *positive* (and *not me* and *negative*) block than the *me* and *negative* (and *not me* and *positive*) block. Similarly, a positive (IAT-D effect) score will be obtained if participants have positive implicit associations with the self. A negative (IAT-D effect) score would reflect negative implicit associations with the self. Scores of zero indicate no difference in the strength of association between the two blocks (congruent and incongruent).

2.3.6 The Self-Compassion Scale (SCS: Neff, 2003b)

The Self-Compassion Scale is a 26-item questionnaire that measures aspects of self-compassion (self-kindness, common humanity and mindfulness) and their opposites (self-judgement, isolation, and over-identification). It used a 5 point Likert scale (1 = almost never; 5 = almost always) and has good internal consistency and test-retest reliability (Neff, 2003b). In this sample, Cronbach's α of .81 was found for self-kindness, .69 for self-judgement, .77 for common humanity, .81 for isolation and .78 for over-identified.

2.3.7 Self-image questionnaire

Participants were asked "Thinking about the speech you gave, do you have an image of yourself right now?" If so, they were asked to rate the vividness of this image on a 1 (not at all vivid) to 10 (extremely vivid) scale.

Participants were also asked to rate the valence of the image using a bipolar scale that ranged from –3 (extremely negative) to +3 (extremely positive), with a midpoint of 0 = no more negative than positive. Participants were asked to complete this measure on two occasions; immediately after giving the speech and following the written task (group manipulation).

2.3.8 Manipulation Checks

Participants were also asked to rate how difficult it was for them to give the speech on a scale of 0-10, where 0 was not at all difficult and 10 the most difficult the

task could be. This was to check that the groups did not differ in terms of how difficult they found the speech.

Following the written task (the experimental manipulation) participants were asked to rate how much of the time they were able to stick to the instructions on a scale 0 (none of the time) to 10 (all of the time) scale.

2.4 Procedure

The University of Southampton Department of Psychology Ethics Committee granted ethical approval for the study (see Appendix A for approval letter). The final procedure was developed after piloting the study on fifteen participants. The written exercises were modified in light of feedback, to make them clearer and easier to follow. The self-compassionate and emotional processing instructions continued to be closely matched to those used by Leary et al (2007) as these instructions had already been demonstrated as effective manipulations in non-socially anxious participants. Participants were screened on the SIAS and those who were eligible for the study were approached by e-mail informing them that they were eligible to participate in a study on attitudes to self. If participants' were interested in taking part in the study they were tested individually. They were given an information sheet and consent form

to sign (see Appendix C) and then asked to complete the BDI, and STAI state and trait questionnaires in a counterbalanced order.

Following this, participants were told that they were required to give a two minute speech on one of three topics: the pros and cons of the death penalty, the pros and cons of the war in Iraq or the pros and cons of legalising cannabis, which would be video-taped. If they were willing to continue they signed an additional consent form. No participant withdrew from the study.

Next, participants were asked to complete a second STAI-State measure, the self-image questionnaire (see Appendix D) and a difficulty scale (manipulation check) (see appendix E).

Next the researcher gave the participant one of three sets of instructions depending on which condition they were in.

2.4.1 Self-compassion instructions

We are interested in the way people respond to giving a speech. What you write down will not be evaluated.

Imagine that you have just watched a friend giving a speech. Spend a few minutes thinking about how you would talk to your friend about his or her speech. Think about what feedback you would give to him or her. Consider how you would feel towards your friend and how you would show those feelings.

Imagine yourself giving this feedback to your friend. Notice your tone of voice and the words you would use. Picture your body language and your expression. Notice how you would feel giving the feedback to your friend.
Spend a few minutes thinking about this.

Write a paragraph below about the speech you just gave, showing the same understanding and concern towards yourself, as you would to a friend. Write it as if you were speaking to your friend (i.e. "You...).

Now we would like you to consider how other people experience speeches. Think about the difficulties that they experience. Consider what thoughts and feelings they have giving a speech. Try to imagine what it's like for other people in these situations. See if you can get into their heads and imagine how they might feel. Take a few minutes imagining what other people feel when they give a speech.

Please write a paragraph about how other people experience giving speeches, focusing on how they feel.

Finally, step back from your experience of giving the speech. Reflect on your experience of giving the speech in an objective way. Consider how you performed and how you felt without getting 'caught up' in the emotion.

After thinking about this, write a paragraph describing your experience of giving the speech in an objective way.

2.4.2 Emotional processing instructions

We are interested in the way people respond to giving a speech. We will be asking you to think about your speech and then to write about your thoughts and feelings. What you write will not be evaluated in anyway.

Please spend some time reading through this.

I would like for you to write about your very deepest thoughts and feelings about the speech you have just given. In your writing I'd like you to really let go and explore your very deepest emotions and thoughts.

Consider how you felt while you were giving the speech. Remember the thoughts that were going through your mind. Think about your performance and how you came across.

Go back in your mind to when you were giving the speech. Notice how you were feeling at the time. Tune in to any sensations in your body. Notice the sound of your voice.

Pay attention to the thoughts that were going through your head and the emotions you experienced.

The most important thing is that you really let go and dig down to your deepest thoughts and feelings about your performance of the speech.

Take a few minutes to reflect on this and then write down your deepest thoughts and feelings about the speech. Please write in the space below and continue over the page.

2.4.3 Control Instruction

We are interested in the way people respond to giving a speech. We will be asking you to think about your performance in the way you normally would and then to write down your thoughts. What you write will not be evaluated in anyway. Please spend 5 minutes thinking about your performance when you gave the speech, in the way you normally would. Then write everything you thought about below.

Procedure Continued

After the participant had completed the written exercise they completed the IAT computer task. Instructions for the IAT were written on the computer screen. Following this, participants were given a further set of questionnaires. The order of presentation of the questionnaires was counterbalanced. Participants were given the State Self-Esteem Scale, the self-image questionnaire and the compliance with the written task manipulation check. Finally they were given the trait measures; Rosenberg Self-Esteem Scale, Self-Liking Self-Competence and the Self-Compassion Scale. The remaining tasks related to the other study that was being conducted (see Appendix B).

Participants were also given a brief anxiety rating scale at the beginning and end of the study (Appendix F). If their anxiety rating was higher at the end of the study than it had been at the beginning they were offered the chance to do a 10-minute progressive muscle relaxation exercise. None of the participant's required this. Three

days after the study, (after participant's had completed measures involved in the other study), they were sent the debrief statement via e-mail and invited to contact the experimenter if they had any further questions about the study (see Appendix G).

3. Results

Statistical analysis was conducted using SPSS, version 14.0. A priori power calculations were conducted based on Cohen (1992). To provide sufficient power (.80) to detect a medium-large effect size between three groups, where $\alpha = .05$, it was estimated that a sample size in the range of 21-52 participants per group were needed, giving a total N in the range of 63-156. However given the time frame and difficulties recruiting highly social anxious participants it was not possible to get 156 participants. As many participants were tested as possible giving a sample size of 63. This was the minimum recommended sample size necessary to detect a large effect size. A minimum statistical level of .05 was set for all tests. All analyses were completed on the complete data set of 63, unless otherwise indicated.

3.1 Data Screening

The distribution of data was checked using Kolmogorov-Smirnov tests. Variables that were not normally distributed were transformed using log transformations. Square root transformations normalised the BDI and SIAS scales and so analyses were completed on the transformed scores. Transformations did not normalise the scores for the scales measuring how *difficult* the speech was and *compliance* with written instructions. Therefore non-parametric tests were used for these measures. Kolmogorov-Smirnov tests were also significant for self-image valence. For this reason non-parametric tests were also used for this measure. A one way analysis of variance (Anova) was used when the data met the assumptions of normality. Where such assumptions were not met then a non-parametirc test, the Kruskal-Wallis was used. Levene's test for equality of variance was only significant

for the Rosenberg Self-Esteem Scale (RSES) variable indicating that the homogeneity of variance assumption was met for all other variables. For the RSES variable, the ANOVA test result for unequal variances is used.

3.2 Group Characteristics

The three groups did not differ significantly in age, $F(2,62) = .483$, $p = .619$ or gender ratio, $X(2) = .648$, $p < .76$. Table 3 shows the mean scores for the standardised questionnaires. There were no significant differences between the three groups on any of the standardised measures.

Table 2: Means and standard deviations of scores on the standardised measures

	Self-Compassion		Control		Emotional Processing		*F* Statistic[4]
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	
SAIS	36.19	6.26	37.76	7.62	38.24	10.13	0.149
STAI State[1]	37.05	8.62	38.57	6.47	43.52	11.2	2.99
STAI State[2]	48.52	12.89	50.62	10.15	51.14	11.19	0.307
STAI Trait	46.95	10.99	45.9	8.33	50.38	12.26	0.994
BDI-11	13.67	12.92	12.35	8.05	16.52	11.94	0.682
RSES	17.48	7.22	18.14	4.8	14.86	5.03	1.89
SELF-LIKING	23.24	8.2	23.38	5.89	20.05	6.76	1.52
SELF-COMPETENCE	22.14	6.0	22.62	4.6	22.38	5.36	0.04
SCS	2.78	0.65	2.55	0.54	2.55	0.69	0.98
SELF-IMAGE VIVID	5.86	2.6	5.67	1.68	5.44	2.12	0.054
SELF-IMAGE valance	-1.3	1.73	-0.9	1.45	-1.06	1.34	0.156

(SAIS: Social Interaction Anxiety Scale; STAI State1; State-Trait Anxiety Inventory State Version administered at the beginning of the study; STAI State2: State-Trait Anxiety Inventory administered for the second occasion, immediately after the speech; STAI Trait: State-trait Anxiety Inventory, trait version; BDI-11: Beck's Depression Inventory; RSES: Rosenberg's self-esteem scale; Self-Liking Self Competence scale; SCS: Neff's self-compassion scale; Self-image vivid: Self-image vividness scale; Self-image valance: Self-image valance scale)

[4] P values ranged from .058 for the STAI State[1] to .894 for self-image valence.

3.3 Manipulation Checks

In order to test whether the three groups differed on *compliance* with the experimental manipulation, participants were asked to rate the extent to which they were able to stick to the instructions on a 1 to 10 scale. All groups showed a relatively high compliance rating, indicating that they followed the instructions of the written task. In the self-compassion group the mean rating was 6.95 (*S.D.* = 1.34); in the control group the mean rating was 6.9 (*S.D.* = 1.77); in the emotional processing group, the mean was 7.75 (*S.D.* = 1.45). A non-parametirc test, the Kruskall Wallis, was used on the data because it did not meet the assumption of homogeneity. This showed that the three groups did not differ significantly on how able they were to follow the instructions (H (2) = 4.06, p = .131). Nor did the three groups differ in how difficult they found the speech, (H (2) = .072, p = .965). In the self-compassion group the mean difficulty rating was 7.1 (*S.D.* = 2.05); in the emotional processing group the mean was 6.85 (*S.D.* = 1.81); the control group mean was 6.81 (*S.D.* = 1.86)

3.4 Self-Esteem Implicit Associations Test – (SE-IAT)

The first aim of the study was to examine whether participants in a self-compassion induction group would have higher implicit and explicit self-esteem than participants in the two control groups. Firstly, the results of the implicit self-esteem measure (SE-IAT) are reported.

The improved algorithm (Greenwald et al, 2003) was used to score the IAT. One participant was excluded because she found the IAT task confusing and stopped part way through. Therefore the analysis was conducted on 62 participants.

In order to investigate whether participants in the self-compassionate induction group had higher positive implicit self-esteem, in comparison to the other two control groups, the IAT-D effect was analysed using a one way ANOVA. There were no significant differences between the three groups, $F(2,59) = .23$, $p = .79$, which indicated that participants in the self-compassionate induction group did not have significantly higher implicit self-esteem scores in comparison to participants in the other two control groups. The mean IAT-D effect for the self-compassionate group was .71 (S.D. = .87); the control group mean was .58 (S.D. = .82); the emotional processing group mean was .54 (S.D. = .88). All groups showed a positive implicit self-esteem bias, as demonstrated by the IAT- D effect.

3.4 Does the self-compassion induction increase explicit self-esteem?

Table 3 shows the means and standard deviations for the state self-esteem measures. There were no significant differences between the three groups, which indicates that the self-compassionate induction did not significantly increase explicit state self-esteem.

Table 3 Mean scores for the state self-esteem measures (SSES) and self-compassion scores (SCS) for the self-compassion group (n=21), the control group (N=21) and the emotional processing group (n= 21).

	Self-Compassion		**Control**		**Emotional Processing**		***F* Statistic**[5]
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	
SSES Positive	36.67	15.41	32.43	12.77	35.24	14.01	0.49
SSES Negative	20.67	13.33	25.1	12.77	23.76	11.56	0.69
SCS total mean	2.78	.65	2.55	.54	2.55	.69	.98
SCS- Self-kindness	2.89	.98	2.56	.79	2.41	.74	1.7
SCS- Self-judgement	3.44	.84	3.43	.55	3.63	.8	.47
SCS-Common Humanity	3	.92	2.73	.88	2.94	.95	.53
SCS -Isolation	3.63	.89	3.86	.84	3.7	1	.34
Mindfulness	3.43	.84	3.04	.73	2.96	.75	2.15
Over- identified	3.55	1	3.74	.75	3.7	.87	.31

(SSES Positive: State self-esteem, positive items; SSES Negative: State self-esteem, negative items; SCS total mean: Self-compassion scale total mean; SCS-kindness: self-compassion scale mean of kindness items; SCS-self judgement: self-compassion scale mean of self judgement items; SCS-Common humanity: self-compassion scale mean of common humanity; SCS-Isolation: Self-compassion scale, mean of isolation items; Mindfulness; Self-compassion scale, mean of mindfulness items; Over-identified: Self-compassion scale, mean of over-identified items).

[5] P values ranged from .38 for Self-compassion scale (SCS) to .96 for Self-competence (On the self-liking/self-competence scale).

3.5. Relationship between explicit and implicit measures of self-esteem and self-compassion

In order to examine whether there was a relationship between the explicit and implicit measures, data were analysed using Pearson's *r* correlations. As predicted, there were significant positive correlations between implicit self-esteem and the explicit self-esteem measures in the self-compassion group only. There was a significant positive correlation between implicit self esteem (SE-IAT) and positive state self-esteem (SSES positive), $r\ (21) = .566, p < .01$. Although the relationship between SSES negative and SE-IAT-D effect was in the expected direction, it failed to reach significance ($r\ (21) = -.314, p = .166$). There was also a significant positive correlation between implicit self esteem (SE-IAT-D effect) and trait explicit measures of self-esteem; RSES, ($r = .582, p < .01$); self-liking, ($r = .567, p < .01$) and self-competence, ($r\ (21) = .561, p < .01$), in the self-compassion group only. In the control group, there was no relationship between the IAT-D effect and RSES or the state self-esteem measure (SSES). The only exception to this was a positive correlation between IAT –D effect and self-competence, $r\ (21) = .463, p < .05$. For the emotional processing condition, the IAT-D effect did not significantly correlate with any of the explicit self-esteem measures.

In order to examine whether there was a significant difference between the correlation coefficients, Fisher's r-to-z transformations were used (Blalock, 1972). The state measure of self-esteem (SSES Positive) and IAT-D correlation coefficients for the self-compassion group ($r = .533$) and the control group ($r = -.114$) did differ from each other significantly ($z = 2.13, p < .05$), suggesting that the self-

compassionate induction may have reduced the dissociation between state positive self-esteem and implicit self-esteem. The difference between the RSES and IAT-D correlation coefficients for the self-compassion group (.582) and the control group (.183) did not differ from each other significantly ($z = 1.06, p = .07$).

A positive correlation was found between self-compassion score and IAT-D effect (r (21)= 0.46, $p < .01$) for self-compassion group only. There was a significant correlation between self-compassion score and RSES for all three conditions; Self-Compassion Group (r (21) = .52, $p < .05$); Control Group (r (21) = .68, $p < .01$); Emotional Processing Group (r (21) = .78, $p < .01$). This suggests that across all the groups, higher self-compassion scores are associated with higher explicit self-esteem. Implicit self-esteem was only significantly related to self compassion in the Self Compassion Group.

Neff's SCS is composed of 6 sub-scales from which a total self-compassion mean total score can be calculated. Table 3 shows the means and standard deviations for each of the sub-scales and the total self-compassion score for each of the three conditions. When the total self-compassion score is calculated, items for self-judgement, isolation and over-identified are reverse scored. The Self-Compassion Scale (Neff, 2003) did not differentiate between the three groups. As this has been designed as a trait measure, we would not necessarily expect the self-compassionate induction to influence participants' scores on this measure.

3.6. Does the self-compassionate induction reduce the vividness and negativity of visual self-images in socially anxious participants?

A second aim of the study was to examine whether the self-compassionate induction had an impact on the vividness and valence of visual self-images.

3.6.1 Image Vividness

Participants rated vividness and valence of self-reported visual images after the speech and after the experimental manipulation to see if self-images are modulated by induced self-compassion. Forty-eight participants reported a visual self-image on both occasions Means and standard deviations of vividness and valence are shown in Table 4. Vividness and valence were analysed in two separate mixed ANOVAs with one between-subject factor (condition) and one within subject factor (time). There was a significant main effect of time for vividness, (F (1,45)=7.72, p=.008), but no time by condition interaction (F (2,45) = .548, p = .58). All participants reported less vivid images following the experimental manipulation.

Table 4: Mean scores for pre and post self-image vividness and valence

	Self-Compassion		Control		Emotional Processing	
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*
self-image vivid 1	5.86	2.60	5.67	1.68	5.44	2.12
self-image vivid 2	5.21	2.2	5.39	2.33	4.7	2.6
Self-image valence 1	-1.3	1.73	-0.9	1.45	-1.06	1.34
self-image valence 2	-1.14	1.7	-0.72	1.07	-1	1.26

3.6.2. Image Valence

There was no main effect of time for valence, F (1,45) = .89, p = .35, and no time by condition interaction, F (2,45) = .059, p = .94, indicating that the self-compassionate induction did not significantly influence the valence of the self-image. As the self-image valance scores were not normally distributed, non-parametric Wilcoxon tests were also conducted to examine the difference in self-image valence for time 1 (immediately after the speech) and time 2 (following the written task), for each of the three conditions. There were no significant differences between time 1 and time 2 image valence for any of the three conditions. In addition, the non-parametric, Kruskall Wallis test showed that the three groups did not differ significantly on the valence of their self-image immediately after the speech (time 1) (H (2) = .280, p = .870) or at time 2 (following the written task) (H (2) = 1.24, p = .538).

As there were no significant differences between the three groups of highly socially anxious participants on the Self-Compassion Scale, the three groups were collapsed in order to examine if Self-Compassion scores correlated positively with the

self-image vividness and valence. The Pearson's correlation coefficients are reported in Table 5.

Table 5. Correlation between self-compassion (SCS) and self-image vividness and valence (n=61)

	SCS	Vivid 1	Vivid 2	Valence1
Vivid 1	-.064	-		
Vivid 2	.219	.219	-	
Valence 1	.403**	.403**	-.083	-
Valence 2	.481**	.481**	-.036	.807**

* Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed)

The results revealed significant positive correlations between the valence of the self-images and self-compassionate scores (SCS), indicating that the higher a participants' self-compassion score the more positively they rated their self-image.

An examination of the relationship between the sub scales of the self-compassion scale with IAT and self-image were also completed. Self-kindness was positively associated with image valence immediately after the speech (r (61) = .484, p = < .01) and after the experimental manipulation (r (61) = .585, p < .01). Self-kindness was also positively associated with implicit self-esteem (r = (61). 433, p < .01). Self-judgement was significantly negatively associated with the valence of the image immediately after the speech (r (61) = -.46, p < .01) and after the group

manipulation (r (61) = .-64, p < .01) indicating that more negative self-images were associated with higher self-judgement scores. There was a significant negative association between implicit self-esteem and self-judgement (r (61) = -.39, p < .01), suggesting that those participants who were more judgmental had less positive implicit self-esteem. The Over-identified sub scale was also negatively correlated with IAT (r (61) = -.328, p < .05) as was the Isolated sub scale (r (61) = -.29, p < .05). The valence of the self-image, following the experimental manipulation, was positively correlated with IAT-D effect (r (61) = - .399, p < .05), suggesting that more positive implicit self-esteem was associated with more positive self-images. Mindfulness was positively correlated with self-image valence (r (61) = .34, p < .05) indicating that higher mindfulness scores were associated with more positive self-images and higher implicit self-esteem (r (61) = .266, p < .05).

3.7. Does the self-compassionate induction decrease anxiety scores as measured by the STAI-State measure?

Finally, it was hypothesised that the self-compassionate induction would reduce the anxiety experienced by socially anxious participants. Following the experimental manipulation, STAI State was measured for a third time. The self-compassion group had a mean score of 42.29 ($S.D.$ = 12.67) the control group had a mean score of 42.67 ($S.D$ = 8.94) and the emotional processing group had a mean score of 43.33 ($S.D.$ = 11.18). The mean STAI state scores did not differ significantly between the three group (F (2.62) = .048, p = .95) indicating that the experimental manipulation did not significantly alter the participants' anxiety.

A mixed ANOVA with one between subject factor (group) and one within subject factor (STAI time) was conducted to examine if there were any differences between anxiety across the three groups over time. There was a significant main effect of time, F (2,59) = 36.96, p < .001), but this did not interact with group (F (4,120) = .967, p = .428). The means show that all participants felt more anxious immediately after giving the speech. As the STAI State measure approached significance between the three groups at the beginning of the study, it was added as a covariate, to examine whether it influenced the difference in anxiety immediately after the speech and following the experimental manipulation. When initial state anxiety was added as a covariate, time remained significant (F (1,59) = 4.475, p <.05). The interaction between time and condition was not significant (F (2,59) = .38, p = .686). This indicates that all participants experienced less anxiety following the written task (group manipulation) regardless of their group.

4. Discussion

The aim of this study was to examine the impact of an induced self-compassionate perspective on implicit and explicit self-esteem, in a group of highly socially anxious participants. We hypothesised that the self-compassion induction would increase the correspondence between implicit and explicit self-esteem, increase implicit and explicit self-esteem, reduce the vividness and negativity of visual self-images and reduce anxiety, in comparison to control groups.

The results provided partial support for the hypotheses. In the self-compassion group, there were a number of significant correlations between implicit self-esteem measured by the IAT and state and trait measures of explicit self-esteem. Implicit and explicit measures are generally uncorrelated or the correlations are somewhat low (mean across 126 studies was .24) (Hofmann, Gawronski, Gschwendner & Schmidt, 2005). The correlations obtained in this study, for the self-compassionate group, were considerably higher (ranging from .56 -.58), indicating a higher correspondence between implicit and explicit self-esteem than is typically found. We cannot, however, say categorically that the manipulation created a closer correspondence between implicit and explicit self-esteem as we did not measure implicit and explicit self-esteem before and after the manipulation.

Previous research of implicit self-esteem in social anxiety, however, has generally failed to find a positive relationship between implicit and explicit self-esteem (de Jong, 2002). Hofmann, et al, (2005) found that correlations between implicit and explicit self-esteem were amongst the lowest found. Konstantinidi,

(2006) found a negative correlation between the implicit self-esteem (IAT-D effect) and explicit self-esteem (RSES) in socially anxious participants, who were instructed to imagine a critical other in the SE-IAT. The higher correlations found in this study, for the self-compassionate condition, provide some indirect evidence in support of the proposal that self-compassion is associated with congruent implicit and explicit self-esteem. Correlations between implicit and explicit self-esteem in the control group were low, apart from the finding that the self-competence scale correlated significantly with SE-IAT. Correlations were also relatively low in the emotional processing control group.

Kernis, Cornell, Sun, Berry and Harlow (2003) has argued that discrepancies between implicit and explicit self-esteem are associated with fragile self-esteem. In contrast, true self-esteem reflects high implicit and explicit self-esteem. Neff (2003) has suggested that true self-esteem and high self-compassion are similar concepts, and if this is true we would expect to find higher self-compassion scores to be positively correlated with high implicit and explicit self esteem. Leary et al (2007) has suggested that low levels of self-compassion might predict fragile self-esteem, whereas high levels of self-compassion might predict true self-esteem. One possible working model of the relationship between self-compassion and implicit and explicit self-esteem, (see Figure 1, Appendix H), predicts that individuals who score high in self-compassion would also have high implicit and high explicit self-esteem. It also predicts that those who score low in self-compassion would score low in implicit and explicit self-esteem. A strong positive correlation would be predicted between implicit and explicit self-esteem and self-compassion. A significant correlation was found between trait self-compassion (SCS) and SE-IAT (.46) for the self-compassion group only.

However a significant correlation between self–compassion and trait self-esteem (RSES) was found for all three groups.

If the self-compassionate induction raised levels of self-compassion, the model in figure 2 would predict that participants in the self-compassionate group would have significantly higher scores in both implicit and explicit state self-esteem measures, in comparison to the control groups. The results did not support this. The lack of significant differences between the three groups suggests that the self-compassionate induction did not significantly increase implicit and explicit self-esteem, in comparison to the control conditions. There are a number of explanations for this finding which will be considered later in the discussion.

The study also examined the vividness and valence of spontaneously generated self-images in response to the socially threatening task of giving a speech. Around two thirds of the participants reported negative self-images. This finding is consistent with theoretical models, which suggest that social anxiety is maintained in part by a negative image of self (Clark & Wells, 1995; Rapee &Heimberg, 1997). Contrary to predictions, the self-compassionate induction did not significantly reduce the negativity of these self-images. This suggests that the self-compassionate induction may not have been powerful enough to reduce the negativity of the participants' visual self-images. Vividness of self-images reduced across all three groups, suggesting that the self-compassionate induction did not influence this.

Clark and Wells (1995) propose that during social interactions, social phobics focus on negative self-perceptions and anxious feelings. This salient information is

likely to be processed in detail. Therefore the content of participant's self-image is likely to have been strongly influenced by their experience of giving the speech. When socially anxious participants were later encouraged to view their performance with kindness and objectivity, their negative recollections may have made this difficult, and negative processing may have intruded.

It is possible that a negative view of self was confirmed, prior to participants having the opportunity to engage in the self-compassionate induction. Price (in preparation) outlines an adapted version of Hofmann's (2007) model of social anxiety, to illustrate the points at which self-compassion may influence information processing in social anxiety. This study was designed in such a way that the self-compassion induction occurred at a late stage in the model, indicating that it would only have the opportunity to influence the post event processing of the speech. It is possible that those in the self-compassionate induction group, were able to engage in more compassionate post-event processing. However this would not necessarily impact on the vividness and valence of a visual self-image which was initially generated during the two-minute speech. This negative visual self-image would have influenced processing prior to the self-compassionate induction. It would be interesting to examine whether inducing a self-compassionate perspective at an earlier stage, prior to engaging in a socially threatening task, would protect socially anxious participants from generating a negative visual self-image.

In support of this, recent research on compassionate mind imagery (Gilbert & Protor, 2005; Lee, 2005) suggests that the creation of compassionate self-imagery can have beneficial effects in the treatment of psychological disorders. We would expect a

self-compassion induction to help individuals with high levels of social anxiety, as high self-compassion involves self-kindness, mindfulness and an awareness of common humanity, all of which are likely to reduce fears associated with social anxiety, namely fear of rejection and negative evaluations from others. In contrast, low self-compassion involves negative self-judgements, a feeling of separateness and isolation and over-identification with self, all of which are experienced by people with social phobia. To test whether the self-compassionate induction, was successful in creating a self-compassionate perspective, it would have been useful to include additional manipulation checks. In this study, participants were asked whether they were able to comply with the written task instructions. However we did not include a check that examined if the instructions induced a self-compassionate perspective. Manipulation checks could have tapped into mindfulness, common humanity or self-kindness. Leary et al (2007) used a manipulation check that focused on whether the self-compassionate induction increased the participants' view that they were similar to others (common humanity). One possibility would have been to examine the participants' written responses. The content of the written responses could have been rated for self-compassion. In this study, participants has been told that their written responses would not be evaluated, as we did not want social evaluative concerns to interfere with the task and potentially weaken the power of the manipulation. Therefore we did not examine the content of the written responses.

The study also hypothesised that those in the self-compassionate induction group would have less situational anxiety following the self-compassionate induction in comparison to the other two groups, as measured by STAI-State. This was administered at the beginning of the study, immediately after the speech and

following the written task (group manipulation). Although there was a significant difference for time, indicating that all participants were significantly more anxious directly after the speech, the three groups did not differ from each other, following the written tasks, suggesting that the self-compassionate induction did not significantly reduce situational anxiety levels in comparison to the control groups. Levels of anxiety were extremely high in all three groups, immediately after the speech. It is therefore unsurprising that anxiety levels would drop, towards the end of the study, when participants had had time to adjust to the situation. Some participants did express feelings of relief after giving the speech. It would have been useful to ask participants to rate how apprehensive they would feel about giving a future speech. It is possible that participants in the self-compassion condition may have felt less anxious about this, in comparison to the control conditions.

It is also possible that the high levels of anxiety may have interfered with the socially anxious participants' ability to develop a self-compassionate perspective. Future studies could manipulate how challenging and threatening the socially threatening task is. Reflecting on a past event (the task used in Leary's study) is less anxiety provoking than giving a speech which is video-taped so that an independent evaluator can rate performance. The nature of the task is likely to have increased levels of self-focused attention as well as social anxiety.

To examine this, future studies could include a socially anxious and non-socially anxious group, so that differences between the two populations could be examined more directly. It is however likely that participants who differ in social anxiety are also likely to differ in trait self-compassion. Manipulations checks that

directly examined whether the self-compassion induction had been successful would also have helped us assess whether the manipulation was effective at increasing levels of self-compassion in socially anxious participants.

If we assume that the manipulation did have a weak effect (as the increased correspondence between implicit and explicit self-esteem tentatively indicates), it could be argued that self-compassion would not necessarily increase implicit and explicit self-esteem. Govorum (2006) has suggested that the lack of correspondence between implicit and explicit self-esteem, indicates that individuals do not generally acknowledge their implicit self-feelings when making judgements about themselves. Govorum (2006) found that mindfulness based meditation increased the congruence between measures of implicit and explicit self-esteem, and argued that this was because mindfulness promotes acceptance and non-judgmental awareness of self-feelings. This would suggest that self-compassion would help an individual to become aware of and develop more insight into their implicit views, even when they are negative, allowing a more integrated self-concept. A non-judgmental, compassionate stance can result in greater authenticity and a reduction in defensiveness, which characterises fragile self-esteem. Therefore, rather than necessarily increasing explicit self-esteem, it may increase resilience and the ability to cope with life's adversaries. Although an individual may still have low self-esteem, self-compassion may increase an individual's ability to cope with this adaptively. The increased correspondence of implicit and explicit self views may lead to a more integrated sense of self, which is more resilient in the face of set backs. Self-compassion fosters a more accepting and kindly attitude to self, allowing individuals to become less defensive and more able to respond authentically to challenges. This study suggests that rather than increasing

levels of implicit and explicit self-esteem, a self-compassion induction may reduce discrepancies between implicit and explicit self-esteem in socially anxious individuals. In order to test this empirically, it will be necessary to measure implicit and explicit self-esteem before and after the manipulation. Although, we did not find the predicted reduction in the negativity of visual self-images, it is possible that intervening at an earlier stage of Hofmann's information processing model, would be more effective.

A strength of this study was that it provided an initial exploration into the relationship between self-compassion and implicit and explicit self-esteem in socially anxious participants. The pattern of significant correlations for each of the sub scales of the self- compassion scale is interesting. The sub scales self-judgement, isolation and over –identification were significantly negatively correlated with implicit self-esteem as measured by SE-IAT. Self-kindness was positively associated with implicit self esteem, suggesting that positive implicit self-esteem may be related to viewing the self more kindly.

The sub scales of the Self-Compassion Scale were also significantly correlated with the valence of the visual self-image. There was a significant negative association between self-image valance and self-judgement. Self-kindness and mindfulness were positively associated with image valence immediately after the speech and following the written exercise (experimental manipulation), suggesting that mindfulness and self-kindness are related to a more balanced and less negative self-image. However the experimental manipulation did not result in a reduction in the negativity of visual self-images.

The observed pattern of correlations found in this study, would be predicted by Gilbert's Social Mentality Theory (2000; 2005). This model would predict that high levels of self-judgement, isolation and over-identification would be related to the social rank mentality. In contrast, mindfulness, self-kindness and common humanity would be linked to the care giving mentality. If self-compassion can activate the care giving mentality and deactivate the social rank mentality, socially anxious individuals may find social situations less threatening.

Although the self-compassionate induction did not have a significant impact on results, the correlation between self-compassion score and implicit and explicit self-esteem support the view that low self-compassion plays a role in maintaining social anxiety.

Conclusion

In conclusion, the self-compassion induction did not significantly increase levels of implicit and explicit self-esteem or reduce the valence of negative visual self-images. However higher correlations between implicit and explicit self-esteem were observed in the self-compassion group only, suggesting that rather than increasing levels of self-esteem, self-compassion may reduce discrepancies and so facilitate a more balanced and stable view of the self. Future research could test this by administering implicit and explicit measures before and after more intensive self-compassionate training.

5. References

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Appendix A: Ethics Letter

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Ethics Application

Smith K.M.

Sent: Wednesday, May 16, 2007 2:44 PM
To: thomas s.s. (sst105); price e.d. (edp105)
Attachments: Indemnity Insurance Form.doc (57 KB) [Open as Web Page]

Dear Sara & Emma

Re: Attitudes towards the self

The above titled application was approved by the School of Psychology Ethics Committee on 16 May 2007.

You will now need to complete the attached insurance form - and return to the address provided.

Should you require any further information, please do not hesitate in contacting me. Please quote reference CLIN/04/56.

Best wishes,

Kathryn

Miss Kathryn Smith
Secretary to the Ethics Committee
School of Psychology
University of Southampton
Highfield
Southampton SO17 1BJ
Tel: 023 8059 3995 Fax: 023 8059 2606
Email: kms@soton.ac.uk

Appendix B: Design protocol

LAYOUT OF COMPLETE STUDY[1]

Recruitment

Undergraduate psychology students will be screened using the Social Interaction Anxiety Scale (SIAS). Many participants were screened during the year 1 and year 2 pretest that took place at the beginning of the academic year. Additional participants will be recruited via posters and adverts in Psychobook and Facebook. Psychology students who have not completed the year 1 and year 2 pretest will be offered 1 course credit, whereas nonpsychology students will be offered the chance of winning one of two £10 prizes for filling in the SIAS.

↓

75 undergraduates whose scores on the SIAS falls 1 standard deviation or more above the mean score will be recruited for the study. They will be offered 6 course credits or £7.50 for participating.

↓

Testing session (Approximately one to one and a half hours)

↓

The consent form (1st page only) will be given to participants to read and sign. All participants will complete the Self Compassion Scale (SCS), the State Trait Anxiety Inventory (STAI; state and trait forms), the Beck Depression Inventory-II (BDI-II), and the anxiety rating scale (which will be used to monitor if they need to be offered the progressive muscle relaxation exercise at the end of their experimental session).

↓

Participants will then be taken into another room with a video camera and asked to give a two minute speech. Written consent to give the speech and be video-taped will be gained. Participants will be told that an independent rater will view the tape of their speech and evaluate their performance at a later date. Participants will complete a 2 minute speech, which is video-taped with the investigator in the room but not watching.

↓

[1] The measures in bold formed part of the larger study (Thomas, in preparation)

Next participants will complete the STAI (state form only), **performance rating form,** self-image scale and the difficulty rating scale.

Conditions

25 participants will receive the self-compassion manipulation and complete a written task

25 participants will receive the emotional processing manipulation and complete a written task

25 participants will receive the control manipulation and complete a written task

All participants will then complete the following assessments: Implicit Association Test, Rosenberg Self Esteem Scale, STAI (state form), Self-image Questionnaire, **Performance Rating Form, Belief Rating Scale**, Instruction Compliance Rating Scale, and Anxiety Rating Scale and the State Self-esteem Scale.

Any participant with a higher score on the Anxiety Rating Scale at the end of the session than at the beginning of the session would be offered a 10 minute progressive muscle relaxation exercise.

Participants will take away 3 Daily Thoughts Questionnaires (DTQ) and 1 Open-ended Questionnaire (OEQ). Participants will be asked to complete 1 DTQ each day for 3 days, and on the final day, they will complete the OEQ. They will be asked to return the measures to a designated box in the psychology department. All of the participants will be invited to a verbal debrief session at the end of their participation in the study. If they fail to attend they will receive a debriefing statement via email or post and will be offered another opportunity to contact the investigators for a verbal debrief session.

Video-taped speeches will be viewed and evaluated using the observer form of the Performance Rating Form by an independent observer who is blind to the study.

Appendix C: Consent Form

Attitudes towards the self
Consent Form for Research Participants

Information sheet

We are Sara Thomas, and Emma Price, Trainee Clinical Psychologists working with Dr Lusia Stopa at the University of Southampton. We are requesting your participation in a study regarding attitudes towards the self. This will involve a number of tasks, both social and non-social and will take approximately 1 hour to complete. 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 continued participation in this research will be taken as evidence of your giving informed consent to participate in this study and for your data to be used for the purposes of research, and that you understand that published results of this research project will maintain your confidentiality. 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 psychology department. If you have any questions please ask us now or contact us, Sara Thomas on sst105@soton.ac.uk or Emma Price on edp@soton.ac.uk.

Signature Date

Name

Statement of Consent

I _____ have read the above informed consent form.
[participant's 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. A copy of this consent letter will be offered to me.

(Circle Yes or No)

I give consent to participate in the above study.

Yes No

I give consent to be videotaped/audiotape.

Yes No

I understand that these videotapes/audiotapes will be stored securely

Yes No

Signature Date

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, Department of Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: (023) 8059 3995.

Appendix D: Self-image Scale

Self-image Questionnaire

1. Thinking about the speech you gave, do you have an image of yourself right now?

Yes / No (please circle)

If yes please answer the following questions:

2. Please rate how vivid the image is.

0 1 2 3 4 5 6 7 8 9 10

Not at all vivid — Extremely vivid

3. Please rate how positive or negative the image is.

-3 -2 -1 0 +1 +2 +3

Extremely Negative — No more positive than negative — Extremely positive

Appendix E: Manipulation Checks

Difficulty Rating Scale

How difficult was it for you to give the speech? Rate the difficulty on a scale of 0-10 where 0 is not at all difficult and 10 is the most difficult a task could be.

Not at all difficult										The most difficult
0	1	2	3	4	5	6	7	8	9	10

Compliance Rating Scale

While doing the written task, how much of the time were you able to stick to the instructions that you were given? Rate how you did on a scale of 0-10 where 0 is none of the time and 10 is all of the time.

None of the time										All of the time
0	1	2	3	4	5	6	7	8	9	10

Appendix F: Anxiety Rating scale

Anxiety Rating Scale

How anxious are you right now? Rate your anxiety on a scale of 0-10 where 0 is not at all anxious and 10 is the most anxious you have ever felt.

No anxiety										Most anxiety
0	1	2	3	4	5	6	7	8	9	10

Appendix G: Debrief Statement

Attitudes towards the self
Debriefing Statement

The aim of this research was to assess whether an induced self-compassionate perspective impacts self esteem, perceptions of performance, and post event processing in socially anxious people following a social task. Self-esteem was measured using the Implicit Association Test (IAT: Greenwald et al., 1998), the Rosenberg Self-Esteem Scale (RSE: Rosenberg, 1965), and the Self-Liking/Self-Competence Scale (SLCS: Tafarodi & Swann, 1995). Perceptions of performance were measured using the Public Speaking Rating Scale (PSRS; Rapee & Lim, 1992). Post event processing was measured using the Thoughts Questionnaire (Edwards, Rapee & Franklin, 2003) and the Daily Thoughts Questionnaire (Dannahy & Stopa, 2006).

You were one of 60 participants who indicated socially anxious tendencies on a previous questionnaire allocated to either the self compassion induction or a control instruction condition. In the self compassion condition participants were given instructions which aimed to induce a compassionate perspective towards themselves in relation to their performance on the speech task. The instructions in the control conditions were written to encourage processing of performance on the speech task which more closely replicates 'normal' processing. An additional control encouraged deeper emotional processing. We hypothesized that inducing self compassion would improve participants' perceptions of their performance, increase self esteem, and decrease post event processing.

Your data will help our understanding of how self compassion induction impacts symptoms of social anxiety. It may lead to improved treatments for social anxiety.

Once again results of this study will not include your name or any other identifying characteristics. The experiment did use deception. You were not told initially that you would asked to give a 2 minute speech. This was withheld so that baseline measures were not tainted by the anxiety of anticipating the speech. You may have a copy of this summary if you wish, and I can provide you with a summary of the results when the study is complete.

If you have any further questions please contact us Sara Thomas at sst105@soton.ac.uk, Emma Price at edp105@soton.ac.uk, or Lusia Stopa at L.Stopa@Soton.ac.uk.
Thank you for your participation in this research.
If you are interested, additional information about social anxiety in general and relevant research papers follow the end of this letter

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ.
Phone: (023) 8059 3995.

Social anxiety is a normal experience. Some people have higher levels of social anxiety than others. If you feel that it is a significant problem for you (e.g., if you feel that your anxiety prevents you from doing things on a regular basis), then there are various forms of help that you can access:

- The university counselling service (http://www.counsel.soton.ac.uk/index/) or your GP.
- Butler, G. (1999). Overcoming Social Anxiety: A Self-help Guide Using Cognitive Behavioural Techniques. An excellent self-help guide!
- http://www.social-anxiety.org.uk A good starting point for people just finding out about social anxiety and related issues, to enable them to access further information through this site and through external links; and to act as a central hub for the community of those with social anxiety problems in the UK.
- http://www.babcp.com (British Association for Behavioural and Cognitive Psychotherapies).
- http://www.metta.org.uk/home.asp (Masses of therapies from 'the holistic web').
- http://www.phobics-society.org.uk/ (the largest charity dealing with anxiety and phobias). Providing support and help if you've been diagnosed with, or suspect you may have an anxiety condition as listed on the right. They can also help you deal with specific phobias such as fear of spiders, blushing, vomiting, being alone, public speaking, heights - in fact, any fear that's stopped you from getting on with your life.

Appendix H: Figure 1: Working model of relationship between implicit and explicit self-esteem and self-compassion

Figure 1: Model illustrating hypothesised relationship between implicit and explicit self-esteem and self-compassion