UNIVERSITY OF SOUTHAMPTON

FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES

School of Psychology

The Relationship Between Adult Attachment Representations, Emotion Regulation and Social Anxiety

Sarah Worden, BSc (Hons)

Thesis for the degree of Doctorate in Clinical Psychology

Volume 1 of 1

October 2007

19,919 Words

Abstract

Vertue (2003) wrote a theoretical paper arguing that existing theories of social anxiety disorder can be united by attachment theory. However, more recent research has indicated the possibility of deficits in emotion regulation abilities being involved in social anxiety disorder (Turk, Heimberg, Luterek, Mennin & Fresco, 2005). In the literature review it is proposed that attachment theory can explain and integrate these new findings that social anxiety disorder may be associated with deficits in emotion regulation abilities. It is concluded that attachment theory provides a good theoretical understanding of why people may develop deficits in emotion regulation abilities and develop social anxiety disorder. However, attachment theory may not be the only pathway to the development of the disorder. In the empirical paper, the relative impact of attachment representations and emotion regulation on social anxiety are examined. A measure of personality was used as a control variable. It is concluded that whilst attachment representations may be important in social anxiety, personality and emotion regulation abilities may be more predictive of someone developing social anxiety. Thus, it is argued that emotion regulation abilities need to be considered in theoretical models of social anxiety. Directions for future research are suggested and the clinical implications of this research are discussed.

Table of Contents

	Page
Social anxiety, emotion regulation and attachment	1
Abstract	2
Introduction to Social Anxiety Disorder	4
Interpersonal Process in Social Anxiety	6
Early Experiences	11
Overview of Attachment Theory	14
Evidence Base for Attachment Theory	19
Attachment Theory and Resilience to Psychopathology	26
Attachment Theory and Social Anxiety Disorder	28
Emotion Regulation	33
Conclusions	37
References	40
The Influence of Adult Attachment Representation and Emotion Regulation on Social Anxiety	56
Abstract	57
Introduction	58
Method	70
Results	74
Discussion	96
References	112
List of Appendices	

List of Tables

Table 1	Mean Scores, Dispersion of the Data and Internal Consistency (Cronbach's Alpha)
Table 2	Attachment Styles of Participants With and Without Socially Anxiety According to SIAS
Table 3	Attachment Styles of Participants With and Without Socially Anxiety According to SPS
Table 4	Correlations Between BFI Subscales and ASI Attachment Security, SIAS and SPS
Table 5	Summary of Regression Analysis for Variables Predicting SIAS
Table 6	Bi-serial Correlations Between Emotion Regulation (DERS) and Attachment (ASI)
Table 7	Summary of Regression Analysis for Attachment Predicting DERS Total Scores
Table 8	Spearman Correlations Between BFI and DERS

Table 9 Summary of Regression Analysis for Variables Predicting DERS Total Scores

Table 10 Spearman Correlations Between SIAS, SPS, DPRS and DERS

Table 11 Summary of Regressions Analysis for Variables Predicting SIAS

Acknowledgements

I would like to thank all the students who took part in this study, and Toni Bifulco, Professor John and Kim Gratz for allowing me to use their measures. Also I would like to thank Aiden Gregory for his assistance with my statistical queries and Jos Costello for proof reading my work. However, especially I would like to thank both my research supervisors Dr Lusia Stopa and Dr Maret Dymond for helping and supporting me throughout this study, as with out their time, patience and expertise this study would not have been possible. Finally, I would like to acknowledge my family and partner for all their support and encouragement.

The Relationship Between Attachment Representations, Emotion Regulation and Social Anxiety Disorder

Sarah Worden

School of Psychology

Faculty of Medicine, Health and Life Sciences

University of Southampton

Prepared for submission to: Journal of Social and Personal Relationships – see Appendix 1 for instructions to authors.

Running title: Social anxiety, emotion regulation and attachment

Keywords: Social Anxiety, Social Phobia, Attachment, Emotion Regulation

Abstract

This review considers Vertue's (2003) suggestion that attachment theory might represent a possible developmental pathway to social anxiety disorder. This review examines whether the interpersonal deficits experienced by people with social anxiety disorder could be related to early relationship experiences and whether attachment theory can explain this relationship. Furthermore, attachment theory predicts that insecure attachment representations developed in childhood become associated with strategies for managing affect, which impact upon a person's ability to develop interpersonal relationships. Therefore, the review goes on to consider whether people with social anxiety disorder have deficits in emotion regulation, and whether these contribute towards difficulties in social interaction. In light of this discussion directions for future research are suggested.

This review examines the difficulties people who are socially anxious experience in interpersonal relationships and whether attachment theory can contribute to our understanding of why some individuals are more vulnerable to developing social anxiety than others. Attachment theory proposes that early infant-caregiver relationships set the blueprint for later relationships and teach the person strategies for managing their emotions. In the case of social anxiety, attachment theory might provide an explanation for why socially anxious individuals may experience difficulties in interpersonal relationships (Alden & Taylor, 2004), as well as in emotion regulation (Turk, Heimberg, Luterek, Mennin & Fresco, 2005). In addition, it could also explain why negative beliefs about other people and their own abilities in social situations may develop in individuals with social anxiety disorder.

Thus, this review looks firstly at the deficits experienced by people with social anxiety and how these impact upon interpersonal relationships. It then considers how early experiences could influence the development of these deficits, and how attachment theory might contribute to our understanding of them. The next section discusses the evidence that early attachment experiences influence later interpersonal functioning and emotion regulation abilities. The empirical evidence for an association between attachment representations and social anxiety disorder is then considered. Lastly the review considers whether people with high social anxiety experience and process emotions differently to people who have low social anxiety, and whether attachment theory can contribute to this understanding.

Introduction to Social Anxiety Disorder

Social anxiety is defined by Reber (1995) as the "feelings of unease and discomfort in social settings typically accompanied by shyness and social awkwardness" (p.729). Individuals with high levels of social anxiety fear negative evaluation by other people (DePaula, Epstein & LeMay, 1990). They also fear that their behaviour will be scrutinised by others and that they will behave in an unacceptable way, which will lead to rejection and loss of self worth (Wells, 1997). According to Rapee & Heimberg (1997) social anxiety can be viewed as a continuum, ranging from low to extreme degrees of concern over social evaluation. Shyness is thought to be located on the low to middle range of the continuum, social anxiety disorder in the middle to upper end, with avoidant personality disorder located at the extreme upper end of the continuum[1]. There are two types of social anxiety disorder, generalised and specific. In generalised social anxiety people experience anxiety in most social situations, whereas in the specific subtype the anxiety is limited to particular social situations, such as public speaking (Holt, Heimberg & Hope, 1992). Avoidant personality disorder is different from social anxiety disorder in the sense that the latter is the expression of a temperamental trait or a disturbance of the personality development (Cottraux, 2005). The terms social phobia and social anxiety disorder are often used interchangeably to refer to the same disorder. To avoid confusion this paper will use the term social anxiety disorder throughout, although literature using the term social phobia will also be considered.

[1] Both social anxiety disorder and avoidant personality disorder are psychiatric diagnostic categories, which require social anxiety to be interfering with and causing distress in an individual's life to a marked extent.

Prevalence rates of social anxiety disorder are estimated to be between 7% and 13% for individuals across their lifetime, with a higher proportion of females suffering from the disorder than males (Furmark, 2002). Onset of the disorder is usually in the early to mid teens, with the majority of people reporting onset before the age of eighteen (see Nelson et al, 2000). However, there may also be another peak in incidence between the ages of eighteen and twenty-five (Cottraux, 2005). Comorbidity is common. In the National Comorbidity Survey, 81% of people with social anxiety disorder also met criteria for another disorder, such as depression (Magee, Eaton, Wittchen, McGonagle & Kessler, 1996). In most cases social anxiety disorder precedes the onset of other disorders (Lewinsohn, Zinbarg, Seeley, Lewinsohn & Sack, 1997). The stability of the disorder varies, with some individuals remitting very quickly, and others showing minimal remission. According to Rapee & Spence (2004) individuals appear to move up and down the continuum of social anxiety over time, therefore a person may meet the criteria for social anxiety disorder at some life stages and not at others. However, the degree of movement is small.

The aetiology of social anxiety disorder still remains unclear, with a number of potential causes (see Rapee & Spence, 2004 for review). Possible aetiological factors include genetics (Beatty, Heisel, Hall, Levine & La France, 2002; Nelson et al, 2000), skills deficits (Alden & Bieling, 1998), cognitive factors (Clark & Wells, 1995), parenting factors (Bruch & Heimberg, 1994; Dinwiddle et al, 2000; Magee, 1999) and aversive social experiences (see Rapee & Spence, 2004). Thus, the empirical literature indicates that there may be multiple developmental pathways to the disorder. However, unsurprisingly, regardless of the aetiology, one of the central

components of social anxiety disorder is the experience of difficulties in interpersonal relationships. Thus, it is important to consider how social anxiety disorder is related to such difficulties. Therefore, this is the focus of the following section.

Interpersonal Process in Social Anxiety

Social anxiety disorder has a disruptive effect on people's interpersonal relationships, and impacts upon an individual's functioning in a number of domains, including friendships and work relationships (Bruch, Fallon & Heimberg, 2003); and romantic relationships (see Alden & Taylor, 2004 for review). Such problems in interpersonal functioning may come from skills deficits (Alden & Bieling, 1998) and/ or cognitive biases (see Hirsch & Clark, 2004). The following section considers the types of relationship problems that have been observed in social anxiety disorder and how these might be explained theoretically.

People with social anxiety disorder often have fewer social relationships and friendships than non-socially anxious comparisons (Alden & Taylor, 2004). Furthermore, they often view their relationships as less intimate, functional and satisfying than people without the disorder (Alden & Taylor, 2004). It is not known whether their partners reciprocate this view. Further research is needed to investigate whether this is reciprocal and to determine the factors that contribute to these experiences.

Although many socially anxious individuals experience difficulties in relationships, those who are able to form and maintain a romantic relationship resulting in marriage, experience greater life satisfaction (Heinrichs, 2003, cited by Alden & Taylor, 2004) and appear to be at a lower risk of developing an additional mood disorder or avoidant personality disorder than those who do not form romantic relationships (Hart, Turk, Heimberg & Liebowitz, 1999). The ability to develop at least one long-term interpersonal relationship might have a protective impact upon the severity of the disorder. However, patients who were or had been married might have had less severe social anxiety in the first place. The latter hypothesis is also supported to some extent by the fact that they were able to develop the relationship to begin with. The single patients in Hart et al's (1999) study were rated as significantly more avoidant in twenty-four situations involving social interaction and performance. Thus, this finding also supports the hypothesis that married participants may have a less severe social anxiety disorder in the first place. However, there was no difference between single and married patients on all other clinician administered measures of symptomology, such as severity of social anxiety. Therefore, this result might also be explained by the stance that the single patients were only more fearful and avoidant of social situations because they did not have the support of a partner to encourage and support them. Furthermore, as the married patients may have been exposed to more social situations through the support of their partner their social anxiety may have reduced over time, or interfered less with their quality of life, thus, reducing the risk of developing other psychiatric disorders.

Socially anxious individuals also experience difficulties in their interactions with acquaintances and strangers (see Alden & Taylor, 2004). Some researchers

have suggested that this anxiety may stem from socially anxious individuals failing to learn effective social behaviour, such as conversational skills. Thus, the anxiety they experience may be related to these deficits and the resulting negative responses that are provoked in other people (see Alden & Taylor, 2004).

Indeed, socially anxious participants talk less and disclose less intimate information about themselves than their partners (DePaulo, Epstein & LeMay, 1990). In addition, these individuals exhibited a relatively awkward interpersonal style, which kept their partners at a distance and seemed to detach the socially anxious individual from the interaction (Creed & Funder, 1998). It is therefore unsurprising that the conversational partners of socially anxious individuals perceive them as conveying less warmth and interest in the conversation, and exhibiting less positive verbal behaviour than non-anxious individuals (Alden & Wallace, 1995). Furthermore, this awkward interpersonal style may explain why socially anxious individuals are rated by their conversational partners as less likeable and the conversation as less enjoyable in comparison to individuals who are not socially anxious (Alden & Bieling, 1998; Creed & Funder, 1998). Therefore, unsurprisingly, conversational partners have been shown to have less desire for future interactions with socially anxious individuals (Papsdorf & Alden, 1998).

However, Papsdorf & Alden's (1998) findings indicate that socially anxious individuals are not directly rejected because of a lack of reciprocal disclosure, but because conversational partners sees the socially anxious individual as different from themselves. It is how uncomfortable socially anxious individuals appear, as well as their unwillingness to reciprocate in disclosing personal information that is used as

evidence to judge them as different. However, these skill deficits may actually be strategies that socially anxious individuals use to manage their anxiety, which further self-perpetuates the difficulties these individuals experience.

The picture does appears to be more complex, as when social conditions are right, people with social anxiety disorder can behave in a way that elicits a positive response in others (Alden & Taylor, 2004; Rapee, 1995). For example, when socially anxious students were informed prior to an interaction task that opening up and revealing information about themselves was risky because their partner might dislike or disapprove of what they said, they disclosed less intimate information than the non-socially anxious controls (Alden & Bieling, 1998). However, when they were told that people like and approve of people who talk at a matched level of intimacy, the socially anxious students performed the task in a similar way to the non-anxious students. This suggests that if the socially anxious students thought that matching their partners' intimacy of disclosure would lead to a positive outcome, they were able to do so, but if they thought it would have a negative effect, they were more likely to use the self-protective strategy of not disclosing intimate information. This suggests that strategies are used flexibly and are dependent on the person's appraisal of a situation. This is inconsistent with the skills deficit theory of social anxiety disorder (Segrin, 2001), since it shows that socially anxious individuals are capable of appropriate verbal behaviour but elected not to reveal themselves when they judged it risky to do so.

Cognitive theorists such as Clark & Wells' (1995) believe that socially anxious individuals use strategies, called safety behaviours to try and manage their

anxiety, which perpetuate their difficulties, as previously discussed. However, Clark & Wells' (1995) also propose that people with social anxiety disorder believe that they may act in an inept and unacceptable manner, which will result in rejection and humiliation by others. They hypothesise that the anxiety and negative self-evaluative thoughts experienced in social situations deplete resources for attention to external aspects of the situation, such as non-verbal cues of acceptance or approval emitted by another person. This self-focused attention interferes with social performance (see Bögels & Mansell, 2004), and increases the possibility that the feared outcome will occur. Clark & Wells' cognitive model helps to explain why social anxiety disorder can have such a marked impact on interpersonal relationships because the characteristic beliefs and behaviours can interfere with interpersonal behaviour.

However, it is unclear from research whether relationship impairments are found in all people with social anxiety disorder or whether this is limited to patients suffering from generalised social anxiety. For example, a specific social anxiety may be associated with difficulties in social performance but not necessarily in interpersonal relationships in general, whereas generalised social anxiety may show the opposite pattern. Although this is purely speculative, if it were the case, then there may be different developmental pathways to the different subtypes. Future research is needed to address this question.

In summary, current research indicates that people with social anxiety disorder find social interactions difficult and the way in which they interact has a significant impact on the way that they are perceived by other people and on their subsequent difficulties in interpersonal relationships. Therefore, it is possible that

the anxiety experienced in social situations causes the socially anxious person to behave in a way that interferes with their interpersonal functioning, rather than the problem being the result of social skills deficits per se. Thus, taken together, the results from the social deficit theorists and the cognitive theorists suggests that any observable skills deficits may be in managing and regulating the anxiety, rather than in the person's underlying performance ability. As social anxiety is often present from an early age (Wittchen, Stein & Kessler, 1999) dysfunctional strategies for managing anxiety are likely to develop early in life, and may be important in creating vulnerability to developing the disorder. Thus, the review will now consider the role of early experiences in social anxiety disorder.

Early Experiences

Peoples' early experiences of being parented may have a role in the development and/ or maintenance of social anxiety disorder. Factors such as discipline styles and socialisation practices have both been implicated in the development of the disorder (Mills & Rubin, 1998; Rapee & Melville, 1997). In addition, some studies have shown that the child's behaviour may also influence parenting practice (Moore, Whaley & Sigman, 2004). Each of these factors is considered in turn below.

Studies that have looked at discipline styles used by mothers of socially withdrawn children, have found that these mothers are more likely to use power assertive strategies, such as threats of punishment or psychological threats that threaten the child's security and self-esteem, compared to mothers of non-socially

withdrawn children (Mills & Rubin, 1998). Also, the parents of such children are more likely to show parenting behaviour that interfere with the child's development of autonomy. Although it is unclear from prospective methodology whether all of these children go on to develop social anxiety disorder, studies using retrospective methodologies with adults with social anxiety disorder have supported the idea that socialisation parenting practices are important. Bruch & Heimberg (1994) found that people with social anxiety disorder remember their parents as being less sociable, trying to isolate the child from interpersonal interactions, and using shame as a method of discipline. In addition, their parents stressed the importance of other peoples' opinions, and possible scrutiny by other people. Furthermore, Rapee & Melville (1997) have found that mothers of adults with social anxiety disorder were more controlling in regard to socialisation, than mothers of adults in the non-clinical control group. The parents of the socially anxious group also engaged in fewer social activities than parents in the non-clinical control group. It is, therefore, possible that parents were providing a clear indication to their children that social situations are threatening and should be avoided. Such patterns of parenting may also limit the child's opportunities for independence, social skills development and social exploration, which may also contribute to anxiety, and a poor sense of self-efficacy in social situations (Mills & Rubin, 1998). Furthermore, negative interactions with their parents may have taught individuals that significant others are critical and controlling and so assume that people outside of the family will also be like this.

However, the link between parenting and social anxiety is not unique to this disorder, as parenting styles with high expressed criticism have also been linked to

anxiety disorders in children in general (Hirshfield, Biederman, Brody, Faraone & Rosenbaum, 1997). It remains possible, however, that mothers of socially anxious individuals use more control in regard to socialisation than mothers of children with other anxiety disorders. This idea is consistent with Rapee & Melville's (1997) study, which showed that mothers of adults with panic disorder did not appear to be as controlling regarding socialisation as mothers of children in the social anxiety disorder group. So, although mothers of withdrawn or behaviourally inhibited children may still be more controlling than mothers of non-anxious children, this control may be centred on socialisation in children who go onto develop social anxiety disorder.

It is unclear from the cross sectional, retrospective studies described above, whether the parenting style caused the difficulties experienced by the socially anxious individuals, or whether the child's withdrawn behaviour elicits different forms of parenting. There is some evidence that children's anxiety might evoke distinct parenting behaviours, such as over protectiveness (Moore, Whaley & Sigman, 2004). Rubin, Nelson, Hastings & Asendorf's (1999) also found that parents' perceptions of their child's social wariness and shyness influenced their preference for socialisation strategies that limited opportunities for the child to develop independence. This study took place over a two year period and involved direct observations as well as self-report measures. This suggests that parenting style is reciprocal and is influenced by both the child's personality characteristics and parental style.

The research evidence generally seems to support the hypothesis that parenting style may contribute toward the development and maintenance of social anxiety disorder; however this relationship may be interactional. As a result, some researchers have looked at whether attachment theory can explain why some individuals are vulnerable to developing social anxiety disorder. In the following section, an initial overview of attachment theory is given, describing the different attachment representations that are thought to be developed through early relationship experiences and the implications of these on emotion regulation theory. Following this, the evidence base for these attachment representations is considered, leading on to a discussion of whether there is evidence to support an association between attachment theory and social anxiety disorder.

Overview of Attachment Theory

Bowlby initially developed attachment theory (Bowlby, 1969, 1973, 1980, 1988). He believed that infants possess an innate biological instinct to establish and maintain proximity to their caregiver. This infant-caregiver relationship is then thought to serve as the base from which to explore the world safely (Cassidy, 1999). If the caregiver is responsive and sensitive, the infant will feel safe and secure (Bowlby, 1973). However, if the caregiver is not responsive or sensitive to the infant's needs, and/or the infant is not able to establish or maintain proximity to the caregiver, then the infant is hypothesised to feel insecure, unsafe and to experience anxiety (Fuendeling, 1998). Without the support of a caregiver and a secure base in

which to explore his or her environment, the infant has to learn ways to manage this anxiety, whilst still trying to maintain a relationship with the caregiver.

These early infant-caregiver experiences are hypothesised to be internalised into an Internal Working Model (IWM) of other people's dependability and his or her sense of worth as a person (Bowlby, 1973). The IWM is thought to consist of mental representations of the self, one's intimate relationships and the world, which then guide appraisals of the individuals' later experiences and their interpersonal behaviour (see Bretherton & Munholland, 1999). As adults, the model is believed to help individuals predict how to behave and predict how other people are going to relate to them in different situations (Mikulincer & Shaver, 2003). These IWMs are also hypothesised to influence the strategies individuals use to manage their emotions (Cassidy, 1994), which are thought to have been learnt through early relationship experiences (see Cassidy, 1994; Fuendeling, 1998).

Attachment theory has been utilised and developed by both developmental and social psychology, resulting in disagreement about the number and names of attachment patterns that have been identified. Developmental psychologists have tended to focus on attachment states of mind (Dymond, 2004), whereas social psychologists tended to focus on developing measures to identify attachment patterns in romantic relationships (Collins & Read, 1990). Thus, generalisation between the findings of various studies can be difficult. However, there is general agreement that there are three main patterns of attachment representations: secure, avoidant and anxious.

In regard to the secure attachment representation, it is believed that these adults had a caregiver who was able to identify and validate their need for comfort, and care in childhood (Cassidy 1994). In regard to avoidant and anxious attachment representations, it is thought that care giving styles were likely to have been dismissive or inconsistent, leaving the child feeling insecure and anxious about the attachment-figure's availability. These insecure attachment representations are believed to be distinguishable by the affect regulation strategy that is employed to manage this anxiety, by either deactivation or hyperactivation of the attachment system (Mikulincer & Shaver, 2003). Each of these attachment representations are discussed in turn below.

In the secure attachment representation, where the person's needs and feelings are recognised and encouraged by the caregiver, it is thought that the person learns to express his or her needs and emotions effectively, thus gaining support from other people when it is needed and enabling him or her to feel effective in his or her environment (Cassidy, 1994). These experiences are hypothesised to facilitate the development of a positive IWM of the self and others (Griffin & Bartholomew, 1994). The IWM of secure individuals is thought to consist of beliefs about the self as loveable and worthy, and beliefs that other people are generally accepting and responsive towards the individual (Bartholomew & Horowitz, 1991). The caregiver's ability to assist and support the child in learning strategies for tolerating negative emotions during distressing situations, is also believed to help children find distressing emotions less overwhelming and more bearable (Cassidy, 1994). Over time, these skills are thought to be internalised, providing developing individuals with the skills to effectively regulate their own emotions, in the absence of the

caregiver (Mikulincer, Shaver & Pereg, 2003). In adulthood, the theory predicts that the individual will be able to form secure attachment relationships with others, such as romantic partners and close friends, and then use these relationships for support in times of stress (Shaver & Hazan, 1993).

However, when an individual has an avoidant attachment pattern, a deactivation strategy is believed to be used as a way of keeping the attachment system down-regulated to avoid the pain and distress caused by the unavailability of the attachment figure (Mikulincer et al, 2003). Individuals with avoidant attachment are hypothesised to minimize their expressions of affect and to route negative emotions away from consciousness (Cassidy, 1994). It is believed that they have learnt that there is no point showing distress as their needs for comfort will only be rejected (Bartholomew, 1990), as was the case in the past, where only positive emotions were encouraged (Cassidy, 1994).

Bartholomew (1990) believes that there are two distinct styles of adult avoidant attachment; fearful and dismissing. Individuals with a fearful avoidant attachment representation are thought to be highly dependent on others for validation of their self-worth, but because of their negative expectations of others, they often avoid intimacy in order to prevent the pain of potential loss or rejection (Griffin & Bartholomew, 1994). Therefore, this attachment representation is believed to be characterised by a negative model of self and others (Bartholomew & Horowitz, 1991). In contrast, the dismissing avoidant group avoid closeness with other people because of their negative expectations of them, but maintain their high sense of self-worth by defensively denying the value of close relationships and stressing the

importance of independence (Griffin & Bartholomew, 1994). In this case, the IWM is believed to be characterised by a positive model of the self and a negative model of others (Bartholomew & Horowitz, 1991).

In regard to the anxious attachment representation it is hypothesised that a hyperactivation strategy is used to overactivate the attachment system in order to try and gain the availability of the attachment figure and restore security (Mikulincer et al, 2003). These individuals are said to use a maximization strategy of emotion regulation (Magai, Hunziker, Mesias & Culver, 2000), in which high levels of distress are expressed in an attempt to keep attachment-figures involved (Mikulincer, et al, 2003). It is believed that these individuals are hypersensitive to detecting the unavailability of attachment-figure and to detecting threats of rejection or abandonment, as attachment figures have been inconsistently available to them in the past. Therefore, these individuals are thought to crave excessive closeness in personal relationships, leaving them vulnerable to extreme distress when their intimacy needs are not met (Griffin & Bartholomew, 1994). The IWM of enmeshed individuals is hypothesised to consist of a negative self model and positive other model (Bartholomew & Horowitz, 1991).

Attachment theory could help to explain why parenting practices have been found to be important in social anxiety and why socially anxious individuals may fear rejection. This fear is thought to stem from past experiences of attachment figures being unavailable or rejecting of the person, which is believed to have lead to the development of a negative IWM of the self. In addition, attachment theory could start to explain why socially anxious individuals experience difficulties in

interpersonal relationships. However, before this is considered in more depth it is first important to consider the empirical evidence base for attachment theory. Therefore, the next section starts by providing an overview of the research base on attachment and interpersonal relationships and goes on to briefly review the role of attachment in psychopathology before focusing on the small literature base looking at the relationship between attachment and social anxiety.

Evidence Base for Attachment Theory

The empirical literature generally supports predictions made by attachment theory in that parenting practices do appear to be related to attachment representations (Magai et al, 2000). In addition, parents have been shown to respond to their infants differently depending on their parents' attachment representations (DeOliveira, Moran & Pederson, 2005). Furthermore, different attachment representations appear to be related to different strategies for regulating emotions (Fuendeling, 1998). This evidence will briefly be considered.

Adults with secure attachment representations retrospectively describe having respectful, responsive, caring, accepting and undemanding parents, whereas adults with insecure attachment styles describe almost the opposite profile (Hazan & Shaver, 1987). In addition, parental disciplinary practices involving love-withdrawal, negative trait emotion and the tendency to route negative affect from consciousness are negatively associated with security in relationships (Magai, et al, 2000). Parental reasoning on the other hand is positively associated with secure

attachments (Magai, Distel & Liker, 1995). Taken together, these findings suggest that parenting styles and discipline strategies are important in helping a child to develop security in relationships.

Longitudinal studies which address the methodological problems of retrospective research also support the theory (see Sroufe, 2005). Sroufe (2005) followed people from infancy to adulthood for thirty years, and found that infants who were securely attached had a history of more sensitive and cooperative interactions with their caregivers than insecurely attached infants. He concluded that attachment history was related to the growth of self-reliance, the capacity for emotion regulation, and the emergence and course of social competence. The study also indicated that these early attachment experiences with parents spilled over into other relationships, such as with the person's teachers and the researchers. Furthermore, attachment experiences also related to how teachers and researchers responded to the children. This is consistent with the idea within attachment theory's that early attachment representations are replicated and reinforced in other relationships in a reciprocal way, which in turn further strengthen the beliefs, encapsulated in the IWM about other people and about the self.

In addition, DeOliveira et al (2005) have found that a caregiver's ability to recognise and respond to the infant's distress is influenced by his or her own attachment representation. Mothers with a secure attachment style saw themselves as more aware of and confident of their ability to regulate their emotions. They also felt that they were more open and responsive to their children's emotional needs than the mothers with insecure attachment representations. The mothers with a

dismissing attachment representation on the other hand, were less aware of their internalising of emotions and tended to talk about fear and sadness in a defended way. DeOliveira et al (2005), propose that if these mothers experience discomfort with their own emotions, it is likely that they will find it difficult to validate these same emotions in their children. Therefore, they tend to use their own coping strategies to minimise or distort the child's display of negative emotions, except for anger. Anger is seen as an exception because it may at times serve the secondary function of assisting the person to disengage from an interpersonal interaction. It could therefore, be argued that anger is used as a defence against feeling anxiety at the prospect of potential rejection. This proposal has some support in that people with a dismissive attachment style often experience anger, hence it is a requirement for a dismissive attachment style rating in the Attachment Style Interview (ASI; Bifulco, Moran, Ball, & Bernazzani, 2002).

In summary, DeOliveira et al's (2005) study demonstrates that mothers appear to have different emotion regulation strategies that are related to their own attachment styles. These parental attachment styles are likely to be transmitted to their children through the way in which the mother responds to her infant's emotions and behaviours. Research that has found concordance between maternal and infant attachment classifications is consistent with this idea (see Benoit & Parker, 1994; George & Solomon, 1999). Other researchers have also found support for these affect regulation strategies in the different adult attachment representations. Anxiously attached individuals show heightened emotions, whereas dismissively attached individuals tend to report less distress (Magai et al, 2000; Mikulincer &

Orbach, 1995; Mikulincer & Shaver, 2003; Mikulincer, Shaver, Gillath & Nitzberg, 2005; Wei, Vogel, Ku & Zakalik, 2005).

Adult interpersonal relationships have also consistently been found to be influenced by attachment representations, regardless of the methodology used (see Cassidy, 1994; Fuendeling, 1998; Mikulincer & Shaver, 2003; Mikulincer, Shaver & Pereg, 2003). Insecure individuals find people more untrustworthy (Mikulincer, 1998a), less available, less supportive (see Mikulincer & Shaver, 2003) and relationships more frustrating (Brennan & Shaver, 1995), than securely attached individuals.

Interactions in romantic relationships are also influenced by attachment representations. Campbell, Simpson, Boldry & Kashy (2005) found that individuals with an anxious attachment representation showed more visible distress whilst discussing conflicts with their partners than the individuals with a secure or dismissive attachment style, but interestingly so did their partners. This may not be surprising given that the conflicts of these couples tended to escalate and no matter how the partners behaved towards these anxiously attached individuals they still reported high levels of distress. This is consistent with the idea of an IWM that guides appraisals of the situation, as no matter what the partner did the person was still reporting high levels of distress. Further evidence comes from Mikulincer & Shaver's (2003) review of the current research literature, which indicates that the use of an anxious-preoccupied attachment strategy increases a person's vulnerability to strong depressive reactions in response to actual or potential interpersonal losses and intrusive symptoms following a traumatic events. These findings are all consistent

with the use of a hyperactivation strategy (expressing heightened distress), to try and gain attachment figures' availability, and to try and prevent people from leaving or rejecting them (Cassidy, 1994).

On the other hand, the participants in Campbell et al's study with a dismissive attachment representation did not show as much distress as the anxiously attached participants, which is consistent with the use of a deactivation strategy. They also reported that daily supportive events in their relationship with their partner were a less positive experience than the participants with other attachment representations. This is consistent with the suggestion from attachment theory that highly avoidant people dislike emotionally supportive relationships due to feeling uncomfortable with intimacy because they have a negative IWM of other people (Bartholomew, 1990). Kobak & Sceery's (1988) finding that individuals with avoidant attachment representations are experienced by other people as more hostile is also consistent with these individuals having a negative IWM of other people. Furthermore, even though these individuals are perceived as being hostile, they report less anger than anxiously attached individuals; although unsurprisingly physiological data indicates other wise (Mikulincer, 1998b). Again, this is consistent with the use of a deactivation strategy, and the fact that anger could be used as a way of keeping people at a distance (DeOliveira et al, 2005).

Although there is a wealth of research that supports the fact that different attachment representations appear to impact on the way that people experience and relate to other people, as well as to how emotions are managed, the majority of the research uses designs that are cross sectional or correlational and therefore one can

not infer causality. As already discussed a few studies have tried to address the issue of causality by following infants from infancy to adulthood (see Sroufe, 2005); these studies, as outlined previously, are generally supportive of the theory.

Other longitudinal studies have investigated the stability of attachment representations over time (Waters, Hamilton & Weinfield, 2000; Weinfield, Sroufe & Egeland, 2000). Attachment theory predicts that once IWMs are developed in early childhood, these should be fairly stable over the person's lifetime and are only revised in the light of new relationship experiences. In support of these ideas, Waters, Merrick, Treboux, Crowell & Albersheim (2000) found that there was a significant association between early attachment representations and attachment representations twenty years later, with sixty-four percent of the participants having the same attachment representation. Furthermore, stressful life events were significantly related to the likelihood of a securely attached infant becoming insecure in early adulthood, which is consistent with the idea that the IWM is revised through new relationship experiences. Hazan & Hutt (1991) found that people who changed attachment classifications over a one-year period were significantly more likely than the stable group to have experienced relationships that disconfirmed their former model (cited in Shaver & Hazan, 1993). This is consistent with Weinfield, Sroufe & Egeland's (2000) investigation of a high-risk sample, within which a high occurrence of negative life events was noted. This study also found that attachment representations were less stable than in Waters et al's (2000) study, which suggests that environmental stressors can also have an impact on attachment representations.

However, in contradiction to this, Lewis, Feiring & Rosenthal's (2000) study revealed a lack of continuity between attachment representations at 1 year of age and in adolescence. However, in this study, infants' attachment classifications were taken at eighteen months and a valid measure of attachment classification was not taken again until the age of eighteen. It is possible, therefore, that the original IWMs may not have been fully developed at eighteen months. Although this is the age at which the attachment representations of infants are typically measured, IWMs are considered to develop over the first few years of childhood and remain responsive to revisions during childhood (Bowlby, 1973). Furthermore, all of the studies only measured a defined number of life stressors and it is possible that other life events that were not measured may have accounted for the revision in IWM. Alternatively, these findings may also be explained by the idea that people may have a hierarchy of IWMs learnt through relationships with different attachment figures (Bowlby, 1969, 1982; Mikulincer & Shaver, 2003), consisting of different attachment representations. Therefore, during stressful events, where resources are stretched, a person may return to the most well established IWM, which is usually the IWM from the primary caregiver. At other times, when an individual is feeling more secure, another representation may be present.

Although the empirical literature is generally supportive of the predictions made by attachment theory, it is also possible that a person's personality influences the parenting he or she receives (Rubin et al, 1999), which then influences the particular attachment representations that subsequently develops. However, when personality and attachment are examined together, attachment tends to be a better predictor of outcomes, such as quality of relationships (Noftle & Shaver, 2006).

Therefore there would appear to be research supporting the hypothesis that these differences in attachment representations are influenced by the results of attachment experiences, than by personality traits. To sum up then, the evidence base generally indicates that different attachment representations exist, and that these attachment representations are associated with different attachment experiences and strategies for managing emotions. The next section considers the role of attachment in resilience to psychopathology.

Attachment Theory and Resilience to Psychopathology

Attachment theory suggests that adults with secure attachment representations will have developed a strong sense of who they are, and will be able to cope with, and be more resilient to adverse circumstances throughout their lives (Parkes, Hinde & Stevenson-Hinde, 1991). Thus, during stressful life events securely attached individuals are hypothesised to be more likely to be able to access and appraise their emotions and to display this distress in an appropriate way in order to gain support and comfort from interpersonal relationships (Fuendeling, 1998). These emotional abilities can help to alleviate the distress and resolve the situation (see Mikulincer, Shaver & Pereg, 2003). Individuals with insecure attachment representations however, are more likely to have a personality structure of decreased resilience to stress and adverse attachment related life events (Parkes, Stevenson-Hinde & Morris, 1991). It is therefore, not surprising that these individuals are at a higher risk of psychopathology following a stressful life event (Dauila, Hammen, Burge, Daley & Paley, 1996). Given the insecurely attached individuals' dysfunctional strategies for

regulating emotions, it is not surprising that they find it hard to access appropriate emotional and physical support from their relationships. Nor is it surprising that these insecure attachment styles are overrepresented in clinical populations (see Dozier, Stovall & Albus, 1999).

People with insecure attachment representations share many similar characteristics to people with social anxiety disorder. These include difficulties in forming new relationships (Mallinckrodt & Wei, 2005), being more vulnerable to experiencing shame, resentment, suspiciousness, fear of negative evaluation and self-consciousness (Wagner & Tangney, 1991, cited in Shaver & Hazan, 1993). In addition, attachment representations can influence the amount a person self-discloses during a conversation (Mikulincer & Nachshan, 1991; Wei, Russell & Zakalik, 2005), which is similar to the findings from studies looking at social anxiety disorder discussed earlier in the review see page eight (Alden & Bieling, 1998). Like people with insecure attachment representations, socially anxious individuals can be less trusting of other people and can experience elevated levels of anger in response to perceived negative evaluation, which they then suppress (Erwin, Heimberg, Schner & Liebowitz, 2003). Furthermore, there is some evidence that indicators of parental attachment in mid-adolescence are related to the frequency of, and confidence in, utilising social skills (see Engels, Finkenauer, Meeus & Dekovic, 2001). Socially anxious individuals appear to experience an 'automatic programme' of negative thoughts and base their judgement of their performance on preconceived ideas (Stopa & Clark, 1993), thus it is also plausible that they have an IWM or script containing this information. Thus, the possible link between social anxiety disorder and attachment representations has started to be investigated (Dymond, 2004; Eng,

Heimberg, Hart, Schneier & Liebowitz, 2001; Vertue, 2003). This potential relationship is considered below, firstly from a theoretical perspective and then the empirical evidence is discussed.

Attachment Theory and Social Anxiety Disorder

As previously discussed interpersonal relationships and early negative parenting experiences are both associated with social anxiety disorder. Given that both of these factors are relevant to attachment theory, it is surprising that theoretical links between attachment theory and social anxiety disorder have not been considered until recently (Vertue, 2003). For some people at least, early attachment experiences may contribute to the development of social anxiety disorder. Vertue argues that insecure IWMs can make an individual vulnerable to social anxiety. She hypothesises that if such an individual then experiences an aversive social event, this will reinforce the IWM and exacerbate the social anxiety. Alternatively, if the person witnesses a significant other person having an aversive social experience, this may also reinforce negative expectations about the self in social situations through social referencing. There is evidence that, for at least some socially anxious individuals, the negative image that they experience of themselves during social situations, is linked back to an aversive social experience that occurred around the time of the onset of the disorder (Hackmann, Clark & McManus, 2000). It is therefore, possible that this experience has been internalised into an IWM. Vertue considers the IWM to be particularly important as, in addition to containing information about characteristics of the self and others, she also suggests that it

contains knowledge of, and scripts[2] (see Waters & Waters, 2006) of, the person's interpersonal skills and information about how to interact socially to achieve their interpersonal goals.

Two recent studies have shown that social anxiety disorder is associated with anxious attachment representations (Eng et al 2001; Dymond, 2004), although both studies also showed that some socially-anxious individuals do have a secure attachment representation. Eng et al, took a sample of 118 patients seeking treatment for social anxiety disorder and 36 non-clinical controls and looked at attachment representations clusters, social anxiety and the impact on quality of life, using self-report measures. Eng et al found that 92.9% of the patients in the anxious-preoccupied attachment cluster had generalised social anxiety disorder, whereas only 66.7% of the patients in the secure attachment cluster met this diagnosis. Likewise, 57.7% of patients in the anxious-preoccupied cluster had a probable or definite diagnosis of avoidant personality disorder, whereas only 18.8% of the secure cluster had this probable or definite diagnosis. In addition, the patients with an anxious-preoccupied attachment style demonstrated significantly more social fear and avoidance, were more depressed and more impaired by the disorder, and experienced less satisfaction and enjoyment of life than patients who were securely attached. This social fear included the fear of being scrutinized and negatively evaluated by others; all of which are core components of social anxiety disorder. The people with anxious-preoccupied attachment representations also reported less comfort in close relationships, less willingness to trust others or to depend on them, and higher

[2] Scripts are individual's knowledge of events in terms of appropriate behaviour to be carried out, knowledge of who does what, when, to whom and why and can be qualified to specific circumstances (Reber, 1995)

levels of anxiety at the prospect of rejection or abandonment than the non-clinical group. This is consistent with predictions from attachment theory and could indicate that IWMs consisting of mistrust and fear of rejection or abandonment are likely to exacerbate or make a person more vulnerable to social anxiety disorder. However, this study also demonstrates that some individuals with social anxiety disorders are able to develop secure romantic relationships, which is consistent with Hart et al's (1999) findings where some people with social anxiety disorder were able to form and maintain a marital relationship. These studies also indicate that being able to form close interpersonal attachments might be a protective factor against more severe manifestations of the disorder.

It is unclear from Eng et al's (2001) study whether the socially anxious patients in the secure cluster had always been securely attached or whether new relationship experiences through a romantic partner caused a revision of attachment representations. The attachment measure used in their study only assessed attachment style in the context of romantic relationships; therefore it is possible that the patients in the secure cluster had a different IWM for relationships with other attachment figures. Dymond (2004) tried to address this issue by using two measures of attachment, which assessed both general attachment representations as well as romantic attachment in a student population. She also looked at the relationship of both of these types of attachment experience to recollections of early relationship experiences. Her results confirmed Eng et al's findings that avoidance of adult romantic relationships was less important than other types of attachment insecurity. However, both studies show that attachment representations may not be

the only important factor in the development of the disorder, as some participants with social anxiety had secure attachment representations.

The two studies reviewed above offer a useful extension to the literature. However, before any firm conclusions can be drawn we need to consider some methodological limitations. Both studies used self-report measures of attachment representations, which could be subject to self-report biases or to denial of interpersonal difficulties. It is not uncommon for people with anxious attachment representations to idealise their relationships, given their positive IWM of others, thereby providing distorted information, which could result in them being misclassified as securely attached. Replications of these studies using an attachment interview measure, which probes into attachment experiences in a range of relationships and provides a contextual interviewer's rating, which is guided by a manual and is therefore less subjective, would help to clarify whether participants with a secure attachment style and social anxiety disorder are actually secure in other relationships or whether their categorisation as such was a result of measurement and reporting biases.

Another difficulty is that it is hard to generalise the results of Eng et al's (2001) and Dymond's (2004) study. In Eng et al's study the patients were actively seeking help for their social anxiety disorder; therefore, it was likely to have been significantly impairing the patients' lives. Non-treatment seekers may be less impaired or have effective ways of coping. Alternatively, they may be more impaired and feel unable to access treatment, due to the social interaction involved, in which case the individuals might be more likely to have attachment issues. In

Dymond's (2004) study, a student population was used, where the students scoring high on social anxiety did not necessarily have a clinically recognised social anxiety disorder. Student populations are also known for being unrepresentative of the general population, due to educational attainment and socioeconomic status. Therefore, applying these findings to people with social anxiety disorder should be done with caution.

Nevertheless, the research provides some evidence to suggest that attachment representations may be one of the developmental pathways towards the development of social anxiety disorder. However, future research also needs to consider why some people with secure attachment also develop social anxiety disorder. Can this be accounted for by revision of IWMs through new relationship experiences? Or are other factors involved, such as how the individual copes with the social anxiety? Cognitive models of social anxiety, such as those of Clark & Wells (1995) and Rapee & Heimberg (1997), suggest that it is not only a person's appraisal of a situation that interferes with his or her performance but also how they experience and cope with somatic symptoms of anxiety (Wells & Clark, 1997). In recent years, the way in which people experience, process, express and manage emotions has become an important avenue in trying to understand psychopathology generally (Borkovec, Alcaine & Behar, 2004; Mennin, Heimberg, Turk & Fresco, 2002; Overton, Selway, Strongman & Houston, 2005). When faced with stressful situations some individuals draw on positive emotions, which can increase their resilience to stress, whereas other individuals draw on negative emotions which can exacerbate stress (Tugade & Fredickson, 2004). There are a number of models, which try to explain how people experience, process and regulate their emotions (see Baker, 2001; Baker, Owens,

Thomas & Thomas, 2005; Gross, 1998). The next section considers the role of emotion regulation in social anxiety disorder.

Emotion Regulation

There is a very limited literature on how socially anxious individuals experience or manage their emotions, but a study by Turk et al (2005) has indicated significant emotion regulation deficits in these individuals. Their study found that socially anxious students were fearful of both negative and positive emotions, had difficulties in paying attention to, and being clear about what emotions they were experiencing, as well as experiencing difficulties in repairing their mood. In addition, such individuals reported being less expressive of positive emotions, than students with generalised anxiety disorder (GAD), or controls who did not meet criteria for either disorder. These deficits, namely being less expressive of positive emotions, experiencing high levels of anger, and having more difficulties repairing their mood, are consistent with the characteristics of the dismissive attachment style (Bartholomew, 1990) and are likely to have a significant impact on a person's ability to initiate and maintain supportive interpersonal relationships. For example these deficits are likely to reduce rapport and diminish an acquaintance's motivation to become further acquainted. Likewise, in a romantic relationship these deficits, together with the reduction in expression of positive emotions, are likely to make the relationship less rewarding and enjoyable for both parties.

However, caution is needed in extrapolating these findings as the study was based on a student population, where the socially anxious students may not have met clinical criteria for social anxiety disorder. Nevertheless, these preliminary findings indicate that emotion regulation deficits might be a feature of social anxiety disorder. Although purely speculative at this point, it is possible that emotion regulation deficits could contribute to the development of social anxiety through their impact both on the individual's social functioning and the impact that they might have on a social partner's experience of interacting with a socially anxious individual. Further longitudinal research is needed to address this question.

Although there are preliminary findings to suggest that social anxiety may be linked to deficits in emotion regulation and evidence exists to indicate that people with insecure attachments have deficits in emotion regulation abilities (see Cassidy, 1994, Fuendeling, 1998; Mikulincer & Shaver, 2003), to date there does not appear to be any empirical evidence that has directly linked the two areas. However, Turk et al's (2005) findings are consistent with the predictions made by attachment theory. Infants with an anxious attachment representation are likely to have experienced inconsistent recognition of their emotions by their caregiver, and at times even denial of how they are feeling (Cassidy, 1994). In adulthood, this is thought to lead to emotions being experienced as confusing and distressing, due to the fear that other people may not recognise or respond to their distress. The person may become frustrated and angry towards his or her attachment figures when he or she feels that his or her needs are not being met (Magai et al, 2000), resulting in rumination over the anger (Mikulincer, 1998b). Alternatively, a person with an avoidant attachment representation may have had his or her distress completely ignored as an infant,

therefore as an adult may find it difficult to identify feelings at all. In addition, these individuals may be fearful of emotions and use suppression as a strategy to try and avoid feelings.

There is no direct evidence to support the proposal that difficulties in emotion regulation contribute to social anxiety, but there is indirect evidence from examination of the emotion regulation strategies used by insecurely attached individuals. The dismissive attachment style is believed to be associated with the use of suppression as a strategy for emotion regulation. Gross & Oliver (2003) completed a series of studies investigating the effects of using suppression as an emotion regulation strategy as opposed to using cognitive reappraisal. Cognitive reappraisal is a form of cognitive reinterpretation that involves construing a potentially emotion-eliciting situation in a way that changes its emotional impact. Gross & Oliver found that individuals who chronically used suppression did so because they were concerned about being accepted and liked by other people, as is common in social anxiety; however, the coping strategy had the negative long-term effect of suppressors experiencing more negative emotions and fewer positive emotions than individuals who generally used reappraisal as a coping strategy. Suppression also appeared to be related to a "shutting down" of emotions in a way that interfered with attention to emotion, leading to decreased awareness and decreased clarify of emotions and no efforts to repair the person's mood. These results are again consistent with Turk et al's (2005) findings regarding students who were socially anxious. Gross & Oliver also found that peers were able to detect when individuals were using suppression, and generally these individuals were less well liked than students who used reappraisal, although they were not disliked.

Furthermore, suppression generally resulted in less emotional closeness to others, suggesting that this emotion regulation strategy is damaging in interpersonal relationships.

Similar findings have also been found by Butler et al (2003), who showed that partners of participants instructed to suppress their expressions of emotions felt less rapport with these individuals than partners of participants who had not received this instruction. If socially anxious participants do use suppression, this may partially explain why people often find interacting with them less enjoyable and rewarding than interacting with non-socially anxious controls (Creed & Funder, 1998; Alden & Bieling, 1998). The idea that socially anxious individuals may be using suppression as an emotion regulation strategy is also supported by the findings that they are less expressive of positive emotions (Turk et al, 2005) and tend to suppress their anger (Erwin et al, 2003).

However, a different study by Mallinckrodt & Wei's (2005) study suggested that if insecurely attached people are able to develop emotional awareness and a sense of self-efficacy, then they are likely to experience fewer problems in interpersonal functioning. A number of other studies have also indicated that emotion regulation abilities can impact positively on interpersonal functioning. People who are more competent at regulating their emotions report more positive relationships with other people (Lopes, Salovey & Straus, 2003) and more interpersonal sensitivity and prosocial tendencies (Lopes, Salovey, Côte & Beers, 2005) than people less able to regulate their emotions.

Numerous studies indicate that emotion regulation abilities have an impact on interpersonal relationships; however, caution is needed in extrapolating these findings to the general population. The majority of the research in this area uses students, who tend to be in their late teens or early twenties, and may still be developing their affect regulation abilities through new experiences. Therefore, it is possible that samples including older participants with more experience in emotion regulation may demonstrate different results. Thus, these results need to be replicated within the general population before firm conclusions can be drawn. It is also possible that differences in emotion regulation abilities may be the result of another factor such as personality temperaments. This seems unlikely given that studies that have controlled for personality characteristics have still found individual differences in competence at regulating emotions (Lopes et al, 2005). However, further research is still needed to address this question. All in all, preliminary research does suggests that socially anxious people may experience deficits in emotion regulation, which is likely to impact on their ability to form and maintain interpersonal relationships. Furthermore, given the evidence base, it is a feasible proposal that these deficits may have developed through their attachment experiences.

Conclusions

Attachment theory provides a potentially sound theoretical understanding for how early relationship experiences could provide a pathway to the development of social anxiety disorder. Not only can the theory help to explain the development of

interpersonal difficulties that are often associated with social anxiety, it can also assist in explaining the emerging research findings which suggest that socially anxious individuals have deficits in emotion regulation abilities. These deficits include difficulties in identifying, describing, expressing and attending to emotions. In addition, socially anxious individuals appear to experience emotions as frightening. These deficits may also be accounted for by the idea that early attachment experiences might hinder a person's ability to recognise, tolerate, and express emotions, and to use effective strategies to regulate these.

Although the current evidence base is suggestive of an association between anxious attachment representations and social anxiety disorder, it remains unclear whether attachment experiences and difficulties in emotion regulation are important in both generalised and specific types of the disorder. This is likely to have important implications for therapists working in this area. If insecure attachment is more representative of generalized social anxiety, then it may be more difficult for the therapist to build an effective therapeutic alliance. In addition, therapy may need to spend more time addressing the issues associated with the negative IWM and the person's difficulties in emotion regulation.

There is an empirically supported theoretical link between emotion regulation and attachment representations, and between attachment representations and social anxiety disorder. However, research to date has not directly tested whether emotion regulation might function as a mediator or a moderator of the relationship between attachment representations and social anxiety. If emotion regulation was either a mediating or a moderating factor, then it could have important implications for

conducting therapeutic work with these individuals. Therapeutic approaches that help clients identify and tolerate distressing emotions, in addition to helping them find effective strategies to regulate these, may help clients cope with the disorder.

Likewise, it will be important to establish whether these emotion regulation deficits are present prior to the onset of the disorder, or occur as a symptom of the disorder. If these deficits are present prior to the onset of the disorder it may be possible to identify individuals vulnerable to developing the disorder or other psychopathology. Thus, longitudinal studies of emotion regulation abilities in people prone to developing social anxiety disorder are also needed. If these emotion regulation deficits were found prior to the development of social anxiety disorder, it is possible that therapeutic interventions aimed at prevention could be developed to help individuals regulate their emotions more effectively, and reduce the individual's risk of developing social anxiety disorder.

References

Alden, L. E., & Bieling, P. (1998). Interpersonal consequences of the pursuit of safety. *Behaviour Research and Therapy*, 36, 53-64.

Alden, L. E., & Taylor, C. T. (2004). Interpersonal processes in social phobia. *Clinical Psychology Review*, 24, 857-882.

Alden, L. E., & Wallace, S. T. (1995). Social phobia and social appraisal in successful and unsuccessful social interactions. *Behaviour Research and Therapy* 33(5), 497-505.

Baker, R. (2001). An emotional processing model for counselling and psychotherapy, a way forward? *Counselling in Practice*, 7, 8-11.

Baker, R., Owens, M., Thomas, S., & Thomas, W. (2005). *Information Booklet Emotional Processing Research.* Dorset: Dorset Research & Development Unit.

Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships,* 7, 147-178.

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four –category model. *Journal of Personality and Social Psychology,* 61, 226-244.

Beatty, M. J., Heisel, A. D., Hall, A. E., Levine, T. R., & La France, B. H. (2002). What can we learn from the study of twins about genetic and environmental influences on interpersonal affiliation, aggressiveness and social anxiety?: A meta-analytic study. *Communication Monographs*, 69(1), 1-18.

Benoit, D., & Parker, K. C. H. (1994). Stability and transmission of attachment across three generations. *Child Development,* 65, 1444-1456.

Bifulco, A., Moran, P. M., Ball, C., & Bernazzani, O. (2002). Adult attachment style: I. Its relationship to clinical depression. *Social Psychiatry and Psychiatric Epidemiology*, 37, 50-59.

Bögels, S. M., & Mansell, W. (2004). Attention processes in the maintenance and treatment of social phobia: hypervigilance, avoidance and self-focused attention. *Clinical Psychology Review,* 24, 827-856.

Borkovec, T. D., Acaine, O., & Behar, E. (2004). Avoidance theory of worry and generalised anxiety disorder. In R.G. Heimberg, C.L. Turk, & D.S. Mennin (Eds.), *Generalised anxiety disorder: Advances in research and practice* (pp. 77-108). New York:Guildford Press.

Bowlby, J. (1969/1982). *Attachment and loss. Vol. 1: Attachment.* New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss. Vol. 2: Separation.* Harmondsworth, Middlesex: Penguin.

Bowlby, J. (1980). *Attachment and loss. Vol. 3. Loss: Sadness and depression.* New York:Basic Books.

Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory.* London:Brunner-Routledge.

Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation and romantic relationship functioning. *Personality & Social Psychology Bulletin*, 21(3), 267-283

Bretherton, I., & Munholland, K. A. (1999). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of Attachment: Theory, research and clinical applications* (pp.89-115.) New York: The Guildford Press.

Bruch, M. A., & Heimberg, R. G. (1994). Differences in perceptions of parental and personal characteristics between generalised and nongeneralized social phobics. *Journal of Anxiety Disorders*, 8(2), 155-168.

Bruch, M. A., Fallon, M., & Heimberg, R. G. (2003). Social phobia and difficulties in occupational adjustment. *Journal of Counseling Psychology*, 50(1), 109-117.

Butler, E. A., Egloff, B., Wilhelm, F. H., Smith, N. C., Erickson, E. A., & Gross, J. J. (2003).The social consequences of expressive suppression. *Emotion*, 3(1), 48-67.

Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88(3), 510-531.

Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. In N. Fox (Ed.), *The development of emotion regulation: Biological and biobehavioral considerations. Monographs of the Society for Research in Child Development* (Serial No. 240, Vol.59, Nos. 2-3).

Cassidy, J. (1999). The nature of the child's ties. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of Attachment: Theory, research and clinical applications* (pp.3-20.) New York: The Guildford Press.

Clark, D. M. & Wells, A. (1995). A cognitive model of social phobia. In R.G. Heimberg, M. Liebowitz, D. Hope & F. Schneier (eds), *Social Phobia: Diagnosis, Assessment and Treatment.* New York: Guildford.

Collins, N. L., & Read, S. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology,* 58(4), 644-663).

Cottraux, J. (2005). Recent developments in research and treatment for social phobia (social anxiety disorder). *Current Opinion in Psychiatry*, 18(1), 51-54.

Creed, A. T., & Funder, D. C. (1998). Social anxiety: from the inside and outside. *Personality and Individual Differences*, 25, 19-33.

Dauila, J. Hammen, C., Burge, D., Daley, S. E., & Paley, B. (1996). Cognitive/interpersonal correlates of adult interpersonal problem-solving strategies. *Cognitive Therapy and Research, 20, 465-480.*

DeOliveira, C. A., Moran, G., & Pederson, D. R. (2005). Understanding the link between maternal adult attachment classifications and thoughts and feelings about emotions. *Attachment & Human Development*, 7(2), 153-170.

DePaulo, B. M., Epstein, J. A., & LeMay, C. S. (1990). Responses of the socially anxious to the prospect of interpersonal evaluation. *Journal of Personality*, 58(4), 623- 640.

Dinwiddle, S., Heath, A. C., Dunne, M. P., Bucholz, K. K., Madden, P. A. F., Slutske, W. S., Bierut, L. J., Statham, D. B. & Martin, N. G. (2000). Early sexual abuse and lifetime psychopathology: a co-twin control study. *Psychological Medicine*, 30, 41-52.

Dozier, M., Stovall, K. C., & Albus, K. E. (1999). Attachment and psychopathology in adulthood. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, research and clinical applications* (pp.89-115.) New York: The Guildford Press.

Dymond, M. (2004). *The influence of adult attachment representations, early maladaptive schemas and emotional regulation in social anxiety.* Ph.D dissertation, Department of Psychology, University of Southampton, Southampton, UK.

Eng, W., Heimberg, R. G, Hart, T. A., Schneier, F. R., & Liebowitz, M. R. (2001). Attachment in individuals with social anxiety disorder: The relationship among adult attachment styles, social anxiety and depression. *Emotion,* 1(4), 365-380.

Engels, R. C. M. E., Finkenauer, C., Meeus, W., & Dekovic, M. (2001). Parental attachment and adolescents' emotional adjustment: The associations with social skills and relational competence.

Erwin, B. A., Heimberg, R. G., Schneier, F. R., & Liebowitz, M. R. (2003). Anger experience and expression in social anxiety disorder: Pretreatment profile and predictors of attrition and response to cognitive-behavioral treatment. *Behavior Therapy,* 34, 331-350.

Fuendeling, J. M. (1998). Affect regulation as a stylistic process within adult attachment. *Journal of Social and Personal Relationships*, 15(3), 291-322.

Furmark, T. (2002). Social Phobia: Overview of community surveys. *Acta Psychiatrica Scandinavica*, 105, 84-93.

George, C. & Solomon, J. (1999) Attachment and Caregiving: The caregiving behavioural system. . In J. Cassidy & Shaver, S. (Ed.), *Handbook of attachment. Theory, research and clinical applications* (pp.3-20). New York: The Guilford Press.

Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology,* 67(3), 430-445.

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271-299.

Gross, J. J., & Oliver, J. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348-362

Hackmann, A., Clark, D. M., & McManus, F. (2000). Recurrent images and early memories in social phobia. *Behaviour Research and Therapy*, 38, 601-610.

Hart, T. A., Turk, C. L., Heimberg, R., & Liebowitz, R. L. (1999). Relation of marital status to social phobia severity. *Depression and Anxiety*, 10, 28-32.

Hazan, C., & Hutt, M. J. (1991). *From parents to peers: Transitions in attachment.* Unpublished manuscript, Department of Human Development, Cornell University.

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.

Heinrichs, N. (2003, September). *Does a partner matter?* Paper presented at the European Congress of Behavioural and Cognitive Therapy, Prague, Czechoslovakia.

Hirsch, C. R., & Clark, D. M. (2004). Information-processing bias in social phobia. *Clinical Psychology Review,* 799-825.

Hirshfield, D. R., Biederman, J., Brody, L., Faraone, S. V., & Rosenbaum, J. F. (1997). Expressed emotion toward children with behavioural inhibition: associations with maternal anxiety disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36(7), 910-917.

Holt, C. S., Heimberg, R. G., & Hope, D. A. (1992). Avoidant personality disorder and the generalised subtype of social phobia. *Journal of Abnormal Psychology,* 101(2), 318-325.

Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, & representations of self and others. *Child Development*, 59, 135-146.

Lewinsohn, P. M., Zinbarg, R., Seeley, J. R., Lewinsohn, M., & Sack, W. H. (1997). Lifetime comorbidity among anxiety disorders and between anxiety disorders and other mental disorders in adolescents. *Journal of Anxiety Disorders*, 11(4), 377-394.

Lewis, M., Feiring, C., & Rosenthal, S. (2000). Attachment over time. *Child Development*, 71(3), 707-720.

Lopes, P. N., Salovey, P., Côte, S., & Beers, M. (2005). Emotion regulation abilities and the quality of social interaction. *Emotion*, 5(1), 113-118.

Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality and the perceived quality of social relationships. *Personality and Individual Differences*, 35, 641-658.

Magai, C., Distel, N., & Liker, R. (1995). Emotion socialization, attachment and patterns of adult emotional traits. *Cognition & Emotion,* 9, 461-481.

Magai, C., Hunziker, J., Mesias, W., & Culver, L. C. (2000). Adult attachment styles and emotional biases. *International Journal of Behavioural Development*, 24(3), 301-309.

Magee, W. J. (1999). Effects of negative life experiences on phobia onset. *Social Psychiatry and Psychiatric Epidemiology*, 34, 343-351.

Magee, W. J., Eaton, W. W., Wittchen, H., McGonagle, K. A., & Kessler, R. C. (1996). Agoraphobia, simple phobia and social phobia in the national Comorbidity survey. *Archives of General Psychiatry*, 53, 159-168.

Mallinckrodt, B., & Wei, M. (2005). Attachment, social competencies, social support and psychological distress. *Journal of Counseling Psychology,*52(3), 358-367.

Mennin, D. S., Heimberg, R. G., Turk, C. L., & Fresco, M. (2002). Applying an emotion regulation framework to integrative approaches to generalised anxiety disorder. *Clinical Psychology: Science and Practice*, 9 (1), 85- 90.

Mikulincer, M. (1998a). Attachment working models and the sense of trust: An exploration of interaction goals and affect regulation. *Journal of Personality and Social Psychology*, 74(5), 1209-1224.

Mikulincer, M. (1998b). Adult attachment style and individual differences in functional versus dysfunctional experiences of anger. *Journal of Personality and Social Psychology*, 74(2), 513-524.

Mikulincer, M., & Nachshon, O. (1991). Attachment styles and patterns of self-disclosure. *Journal of Personality and Social Psychology,* 61, 321-331.

Mikulincer, M., & Orbach, I. (1995). Attachment styles and repressive defensiveness: The accessibility and architecture of affective memories. *Journal of Personality and Social Psychology,* 68(5), 917-925.

Mikulincer, M., & Shaver, P. R (2003). The attachment behavioural system in adulthood: Activation psychodynamics and interpersonal processes. In M. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol.35, 56- 146). New York: Academic Press.

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003) Attachment theory and affect regulation: The dynamics, development and cognitive consequences of attachment-related strategies. *Motivation and Emotion,* 27 (2), 77- 102.

Mikulincer, M., Shaver, P. R., Gillath, O., & Nitzberg, R. A. (2005). Attachment, caregiving and altruism: Boosting attachment security increases compassion and helping. *Journal of Personality and Social Psychology,* 89(5), 817-839.

Mills, R. S. L., Rubin, K. H. (1998). Are behavioural and psychological control both differentially associated with childhood aggression and social withdrawal? *Canadian Journal of Behavioural Science*, 30(2), 132-136.

Moore, P. S., Whaley, S. E., & Sigman, M. (2004). Interactions between mothers and children: impacts of maternal and child anxiety. *Journal of Abnormal Psychology,* 113(3), 471-476.

Nelson, E. C., Grant, J. D., Bucholz, K. K., Glowinski, A., Madden, P. A. F., Reich, W., et al. (2000). Social phobia in a population-based female adolescent twin sample: Co-morbidity and associated suicide-related symptoms. *Psychological Medicine*, 30(4), 797-804.

Noftle, E. E., Shaver, P. R. (2006). Attachment dimensions and the big five personality traits: Associations and comparative ability to predict relationship quality. *Journal of Research in Personality*, 40, 179-208.

Overton, A., Selway, S. Strongman, K. & Houston, M. (2005). Eating disorders. The regulation of positive as well as negative emotion experience. *Journal of Clinical Psychology in Medical Settings*, 12 (1), 39-56.

Papsdorf, M., & Alden, L. (1998). Mediators of social rejection in social anxiety: similarity, self-disclosure and overt signs of anxiety. *Journal of Research in Personality*32, 351-369.

Parkes, C. M., Stevenson-Hinde, J. & Morris, P. (Ed.). (1991). *Attachment across the life cycle.* London: Routledge.

Rapee, R. M. (1995). Descriptive psychopathology of social phobia. In R.G. Heimberg, M.R. Liebowitz, D.A. Hope, & F.R. Schneier (eds.), *Social phobia: Diagnosis, assessment and treatment* (pp. 41-66). New York: The Guildford Press.

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioural model of anxiety in social phobia. *Behaviour Research and Therapy,* 35(8), 741-756.

Rapee, R. M., & Melville, L. F. (1997). Recall of family factors in social phobia and panic disorder: Comparison of mother and offspring reports. *Depression and Anxiety*, 5, 7-11.

Rapee, R. M., & Spence, S. H. (2004). The etiology of social phobia: Empirical evidence and an initial model. *Clinical Psychology Review*, 24, 737-767.

Reber, A. S. (1995). *The penguin dictionary of psychology.* London: Penguin Group.

Rubin, K. H., Nelson, L. J., Hastings, P., & Asendorpf, J. B. (1999). Transaction between parents' perceptions of their children's shyness and their parenting styles. *International Journal of Behavioral Development*, 23, 937-957.

Segrin, C., & Flora, J. (2000). Poor social skills are a vulnerability factor in the development of psychosocial problems. *Human Communication Research*, 26, 489-514.

Shaver, P. R., & Hazan, C. (1993). Adult romantic attachment. Theory and evidence. *Advances in Personal Relationships*, 4, 29-70.

Sroufe, L. A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development*, 7(4), 349-367.

Stopa, L., & Clark, D. M. (1993). Cognitive processes in social phobia. *Behaviour Research and Therapy*, 31, 255-267.

Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320-333.

Turk, C. L., Heimberg, R. G., Luterek, J. A., Mennin, D. S., & Fresco, D. M. (2005). Emotion dysregulation in generalized anxiety disorder: A comparison to social anxiety disorder. *Cognitive Therapy and Research*, 29(1), 89-106.

Vertue, F. M. (2003). From adaptive emotion to dysfunction: An attachment perspective on social anxiety disorder. *Personality and Social Psychology Review*, 7(2), 170-191.

Wagner, P. E., & Tangney, J. P. (1991). *Affective style, aspects of the self, and psychological symptoms.* Unpublished manuscript, Department of Psychology, George Mason University.

Waters, E., Hamilton, C. E., & Winfield, N. S (2000). The stability of attachment security from infancy to adolescence and early adulthood: General introduction. *Child Development*, 71(3), 678-683.

Waters, E., Merrick, S., Treboux, D., Crowell, J., & Albersheim. L. (2000). Attachment security in infancy and early adulthood a twenty-year longitudinal study. *Child Development*, 71(3), 684-689.

Waters, H. S., & Waters, E. (2006). The attachment working models concept: Among other things, we build script-like representations of secure base experiences. *Attachment & Human Development*, 8(3), 185-197.

Wei, M., Russell, D. W., & Zakalik, R. A. (2005). Adult attachment, social self-efficacy, self-disclosure, loneliness and subsequent depression for freshman college students: A longitudinal; study. *Journal of Counseling Psychology,* 52(4), 602-614.

Wei, M., Vogel, D. L., Ku, T., Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology,* 52(1), 14-24.

Weinfield, N.S ., Sroufe, L. A., & Egeland, B. (2000). Attachment from infancy to early adulthood in a high-risk sample: Continuity, discontinuity and their correlates. *Child Development*, 71(3), 695-702.

Wells, A. (1997). *Cognitive therapy of anxiety disorders. A practice manual and conceptual guide.* Chichester: John Wiley & Sons.

Wells, A. & Clark, D. M. (1997). Social phobia: a cognitive approach. In D. C. L. Davey (Ed.), *Phobias: A handbook of description, treatment and theory.* Chichester: Wiley.

Wittchen, H. U., Stein, M. B., & Kessler, R. C. (1999). Social fears and social phobia in a community sample of adolescents and young adults: Prevalence, risk factors and co-morbidity. *Psychological Medicine*, 29, 309-323.

The Relationship Between Attachment Representations, Emotion Regulation and Social Anxiety

Sarah Worden

School of Psychology

Faculty of Medicine, Health and Life Sciences

University of Southampton

Prepared for submission to: Attachment and Human Development – see Appendix 2 for instructions to authors.

Running title: The influence of Adult attachment…

Keywords: Social Anxiety, Social Phobia, Attachment, Emotion Regulation

Abstract

Researchers have demonstrated a relationship between adult attachment representations and social anxiety disorder (e.g. Eng, Heimberg, Hart, Schneier & Liebowitz, 2001). In addition, a study has shown that socially anxious students had deficits in emotion regulation abilities (Turk, Heimberg, Luterek, Mennin & Fresco, 2005). Given that attachment theory could account for deficits in emotion regulation, the current study aimed to replicate the above findings and investigate whether the relationship between attachment representations and social anxiety may be explained by difficulties in emotion regulation. A measure of personality was also used to control for the effect of personality on attachment and emotion regulation. The study replicated the previous findings and indicated that attachment representations may affect social anxiety through difficulties in emotion regulation. However, the study also concludes that neuroticism may be a more important factor in regard to social anxiety than attachment representations. The clinical implications of these findings and directions for future research are discussed.

Introduction

Social anxiety disorder is a common and debilitating disorder that is estimated to affect between 7% and 13% of the general population at some time during their lifespan (Furmark, 2002). The features of social anxiety are "a marked and persistent fear of one or more social and performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing." (American Psychiatric Association, 1994, p.427). Social anxiety can impact on all areas of a person's life, from career choices and performance (Bruch, Fallon & Heimberg, 2003), to being able to utilise social support in stressful times. The aetiology of social anxiety disorder remains unclear, with numerous possible contributory factors, including genetics, personality, temperament, skills deficits, parenting style, and aversive social experiences (see Rapee & Spence, 2004 for a review). It is likely, therefore, that multiple pathways are involved in the development of the disorder.

One potential pathway that has been investigated is that of early relationship experiences with parents. These early experiences can include overprotective or controlling parenting (Bögels, Oosten, Muris & Smulders, 2001; Rapee & Melville, 1997; Rubin et al, 1999), which limits the child's development of autonomy and/or his or her opportunity to develop social skills (Alden & Taylor, 2004); and the use of parental discipline strategies that induce shame or threaten the child's security and self-esteem (see Bruch & Heimberg, 1994; Mills & Rubin, 1998). Parenting, however, is a reciprocal interaction and the child's social wariness influences

parenting as well as vice versa (see Moore, Whaley & Sigman, 2004; Rubin, et al, 1999). Given the difficulties that socially anxious individuals experience in forming and maintaining relationships (Alden & Taylor, 2004) and the fact that parenting style has also been associated with social anxiety disorder, attachment theory provides a way to integrate these findings and explain a possible pathway to the development of the disorder (Vertue, 2003). In addition, attachment theory could also help to explain why socially anxious individuals may experience anxiety in relationships and why they may lack emotion regulation strategies to cope with these. Difficulties in emotion regulation and interpersonal relating will be discussed in more depth following a brief review of the basic premises of attachment theory. The aim of this paper is to consider how useful an attachment approach is for understanding social anxiety disorder and whether the relationship between attachment representations and social anxiety disorder could be explained by deficits in emotion regulation.

Attachment theory originates from the work of John Bowlby (e.g. Bowlby, 1969; 1973, 1980, 1988), which proposes that infants possess an innate biological instinct to establish and maintain proximity to their mothers (Cassidy, 1999). This serves to keep infants safe and to give them a safe base from which to explore the environment (Cassidy, 1994). However, the mother's responsiveness and sensitivity to the infant has been shown to affect the infant's experience of security. Secure attachments in infancy have been related to social competence and fewer difficulties in peer relationships, compared to insecure attachments (see Sroufe, 2005).

Attachment theory proposes that, individuals develop an Internal Working Model (IWM) of other people's dependability and a sense of their worth as a person through early attachment experiences (Bowlby, 1973). The IWM is proposed to consist of autobiographical memories of attachment experiences, attitudes, beliefs and expectations about the self and others. In addition, it is thought to contain goals and motivations concerning attachment; as well as behavioural strategies for attaining these goals and strategies for managing emotions (Cassidy, 1994; Collins & Read, 1990; Fuendeling, 1998). The IWM is thought to guide appraisals of the individuals' experiences and their interpersonal behaviour (see Bretherton & Munholland, 1999). Thus, as adults, this model helps individuals decide how to behave, and how to predict how other people's reactions in different situations (Bowlby, 1973).

Various measures of attachment patterns have been developed from differing conceptual viewpoints, making generalisation across studies difficult. Despite this however, three main patterns of attachment have been consistently identified: secure, anxious, and avoidant. Briefly, securely attached adults are hypothesised to have received sensitive, responsive and nurturing care-giving during infancy (Bowlby, 1973), from caregivers who are able to recognise, modulate and tolerate their emotions. It has been proposed that these experiences allow the individual to internalise these abilities (Cassidy, 1994) and facilitate the development of a positive IWM of the self and other people (Bartholomew & Horowitz, 1991). Thus, in adulthood the securely attached individual can form other secure attachments with romantic partners and close friends, using these relationships for support in times of stress (Shaver & Hazan, 1993).

However, when caregivers have been unable to meet the child's needs, an insecure attachment representation may develop (see Kobak, 1999). The insecure-anxious attachment representation is believed to result from inconsistent parenting, where the caregiver ignored the person's distress on some occasions and was over involved at others. It is hypothesised that these individuals develop a negative IWM of the self and a positive IWM of other people (Bartholomew & Horowitz, 1991). By comparison insecure-avoidant attachment is believed to be associated with the caregiver ignoring the child's distress. Some authors argue that the avoidant attachment representation can be broken down further into two distinct styles: fearful-avoidant and dismissive-avoidant (Griffin & Bartholomew, 1994). Individuals with the fearful avoidant representation are thought to be highly dependent on other people for validation of their self-worth, but fear rejections from others, and therefore avoid intimacy (Griffin & Bartholomew, 1994). As a result, these individuals are believed to have a negative IWM of the self and of other people (Bartholomew & Horowitz, 1991). In contrast, individuals with a dismissive-avoidant representation are thought to avoid closeness with other people because of their negative expectations of others (negative IWM of others), but maintain their self-worth by denying the value of close relationships (positive IWM of self) (Bartholomew & Horowitz, 1991).

As well as differences in the IWMs, insecure attachment representations are also proposed to be distinguishable from each other by the emotion regulation strategies associated with them (Mikulincer & Shaver, 2003). The anxious-enmeshed attachment representation is hypothesised to be associated with an

overactivation of the attachment system, where a hypersensitivity to attachment-figure unavailability or potential rejection is coped with through high levels of expressed distress in an attempt to keep attachment figures involved (Mikulincer, Shaver & Pereg, 2003). The avoidant attachment representation on the other hand, is associated with a deactivation of the attachment system as a way of coping with potential rejection or attachment figure unavailability. Thus, expressions of affect are minimized and negative emotions are routed away from consciousness (Cassidy, 1994).

People with insecure attachment representations have been shown to have difficulties in forming and maintaining interpersonal relationships (see Berlin & Cassidy, 1999), difficulties which are similar in nature to the difficulties experienced by people with social anxiety disorder (see Alden & Taylor, 2004). Furthermore, individuals with social anxiety disorder do appear to have an IWM, in that they base their judgement of their performance on a preconceived idea about how they will perform in social situations (see Alden & Wallace, 1995; Stopa & Clark, 1993). As previously discussed, an IWM consists of memories of attachment experiences, beliefs and expectations of the self and other people. Given this, and the fact that attachment theory can integrate a number of existing theories of social anxiety, Vertue (2003) proposed that there was a theoretical link between social anxiety disorder and attachment theory.

Vertue (2003) suggested that when a person with an IWM which might make them vulnerable to social anxiety (such as having a negative model of themselves), experiences a social event in which a significant negative emotion is experienced

(such as humiliation, fear or rejection), his/her working model of attachment may be reinforced and the social anxiety exacerbated. Vertue also suggested that social anxiety could occur if a person witnesses a significant other having an aversive social experience, because this experience could reinforce negative expectations about the self in social situations. Vertue argues in support of the idea that IWMs contains knowledge of the person's interpersonal skills and procedural scripts of how to interact socially. This is important because if a person has a script indicating poor performance and feels that he or she has no social skills it is likely to increase anxiety, which could then interfere with performance and thus reinforce the original script.

Few studies have directly investigated the link between attachment representations and social anxiety. However, the two studies that have concentrated on this area, have been promising (Eng, Heimberg, Hart, Schneier & Liebowitz, 2001; Dymond, 2004). Eng and colleagues sampled 174 patients seeking treatment for social anxiety disorder who met DSM-IV criteria for the disorder, and 36 non-clinical controls, in two studies. The participants completed a number of self-report measures looking at social anxiety, and the impact of anxiety on their lives, as well as the Revised Adult Attachment Scale (RAAS). In addition, clinician administered measures such as the Disability Profile and Liebowitz Social Anxiety Scale were also administered. Participants with a diagnosis of social anxiety disorder scored significantly higher on RAAS attachment anxiety, lower on the dependent and close subscales than the non-clinical control group and generally fell into two attachment clusters: anxious-preoccupied and secure. Across the two studies, 92.9% (n=73) of participants in the anxious-preoccupied attachment cluster were diagnosed as having

generalised social anxiety disorder, whereas only 66.7% (n=45) of the participants in the secure cluster met this diagnosis. The patients in the anxious-preoccupied cluster also reported more severe social anxiety and avoidance, more impairment and were rated as more depressed than those patients who were in the secure cluster. This suggests that generalised social anxiety is associated with anxious-preoccupied attachment representations; however, it can also occur in securely attached individuals although these individuals tend to be less impaired by the disorder. Thus, for some people having an insecure attachment representation may contribute towards them being more vulnerable to developing social anxiety disorder.

One limitation of Eng et al's (2001) study was its use of the RAAS (Collins, 1996), which only assesses romantic attachment representations. Individuals with a secure romantic attachment representation and social anxiety may have revised their attachment representations in light of new experiences in romantic relationships, but their general overall attachment representation may still remain insecure. Dymond (2004) attempted to address this issue by using two measures of attachment; The Experiences in Close Relationships Questionnaire (ECR, Brennan, Clark & Shaver, 1998) and the Vulnerable Attachment Style Questionnaire (VASQ, Bifulco, Mahon, Kwon, Moran & Jacobs, 2003). The VASQ is a measure which looks at general relationship experiences, whereas the ECR examines only romantic relationships. Dymond administered the questionnaires to 175 undergraduate students and found that avoidance and anxiety on the ECR, and insecurity on the VASQ, were all significantly correlated with social anxiety.

Both Dymond's (2004) and Eng et al's (2001) studies used self-report measures to assess attachment representations. Given that self-report can be subject to bias or denial of interpersonal difficulties (Bifulco, 2002), these measures may be less reliable than interview measures, which are generally less subjective and inquire more depth about the frequency, intensity, duration and content of attachment experiences (Bifulco, 2002). Therefore, even if an individual denies attachment difficulties, these may become apparent through interview by probing into the person's relationships experiences in more detail. In addition, interview based measures can also assess a range of interpersonal relationships and offer a more standardised, objective assessment of attachment. It is therefore, important to pursue research into social anxiety and attachment using more rigorous research methodology.

One interview measure that is frequently used to assess adult attachment patterns is the Adult Attachment Interview (AAI, George, Kaplan, & Main, 1985). However, this is expensive and time consuming, which puts it beyond the reach of many researchers' time and resources. Bifulco and colleagues have designed an alternative interview measure called the Attachment Style Interview (ASI, Bifulco, Moran, Ball, & Bernazzani, 2002). This classifies people into five categories: one category of secure attachment, and four categories of insecure attachment: enmeshed, fearful, angry-dismissive and withdrawn. It is also able to identify the extent to which the insecure attachment categories are dysfunctional (markedly, moderately or mildly). Bifulco and colleagues use five categories of attachment, because they argue that it is useful to divide dismissing attachment into two categories: i) those who experience anger (angry-dismissive); and ii) those who do not (withdrawn).

Although both styles have features of self-reliance and a lack of desire for engagement with others, it was observed that there was no expression of hostility to others in the withdrawn style, indicating a shutting down of all emotions including anger (Bifulco, Lillie, Ball & Moran, 2000), whereas there were expressions of anger in people with the angry-dismissive style.

In social anxiety, a shutting down of all emotions is not usually observed; however, there is often hypervigilance to anxiety, which is more consistent with the enmeshed attachment style. Cognitive models of social anxiety, such as those of Clark & Wells (1995) and Rapee & Heimberg (1997), suggest that it is not only the way in which the person appraises the situation that interferes with his or her performance, but also the way in which they experience and cope with their somatic symptoms of anxiety (Wells & Clark, 1997). Thus, strategies for regulating and managing emotions may well be important in the maintenance of social anxiety at the very least.

Gratz & Roemer (2004) conceptualised emotion regulation as involving the ability to recognise, understand and accept emotions; control impulsive behaviours stemming from negative emotions, so that desired goals can be reached; and use situationally appropriate emotion regulation strategies flexibly to modulate emotional responses. They argue that the absence of any of these abilities would indicate the presence of difficulties in emotion regulation, and an absence of a number of these abilities has been found in social anxiety disorder (Turk, Heimberg, Luterek, Mennin & Fresco, 2005). Turk and colleagues found that socially anxious individuals had difficulties in identifying, describing and paying attention to their emotions, and that

they were fearful of both positive and negative emotions. This is consistent with Dymond's (2004) finding that social anxiety was associated with avoidance of emotions. Furthermore, Turk et al found that the socially anxious participants, and participants with generalised anxiety disorder, reported feeling less able to repair their mood than participants in the control group. This study indicates that individuals with social anxiety disorder might have problems in their emotion regulation abilities. However, this suggestion is based on the findings of only two studies and it is important to conduct more research in this area before firm conclusions are drawn.

There is an association between social anxiety and insecure attachment (Eng et al, 2001), and research into emotion regulation has shown that people with certain types of insecure attachment representations have problems in emotion regulation (see Fuendeling, 1998 for review). For example the enmeshed attachment representation has been associated with heightened levels of anxiety and distress (Campbell, Simpson, Boldry & Kashy, 2005; Mikulincer & Orbach, 1995; Mikulincer & Shaver, 2003); whereas the dismissive attachment representation has been associated with lower levels of distress, anxiety and anger (Campbell et al, 2005; Mikulincer, Shaver, Gillath & Nitzberg, 2005). If insecure attachment is characteristic of a large proportion of individuals with social anxiety disorder, then we would also expect to find evidence of emotional dysregulation in this group.

So far the research into attachment representation and emotional regulation has demonstrated a relationship between the two factors, but has not provided evidence of a causal role for attachment. It is possible therefore, that another factor,

such as personality disposition makes insecurely attached individuals vulnerable to difficulties in emotion regulation, rather than these difficulties being caused by their attachment representations. There is some evidence to support the idea that personality traits influence emotion regulation abilities (Tamir, 2005). Tamir (2005) found that neuroticism was associated with a preference for engaging in a task which induced worry prior to a cognitively demanding task (Tamir, 2005). On the other hand, Lopes, Salovey, Côté & Beers, (2005) found that emotion regulation abilities were significantly associated with the quality of social interaction, even after controlling for the effects of personality, which suggests that emotion regulation abilities have an effect on social interactions that cannot be explained by personality factors alone. However, future research needs to control for the possible effects of personality on attachment representations and emotion regulation abilities.

Taken together, the empirical literature suggests that attachment representations are associated with both social anxiety and difficulties in emotion regulation. In addition, social anxiety has been associated with deficits in emotion regulation and emotion regulation abilities have been found to affect social interaction. However, to date there has been no attempt to investigate whether emotion regulation could mediate the relationship between attachment and social anxiety.

This study aims to investigate the relationship between attachment status, emotion regulation, and social anxiety, while controlling for personality and mood states, and has five main aims. One: to confirm that there is a relationship between attachment representations and social anxiety, using an interview based measure. It

is hypothesised that insecure attachment representations will be associated with social anxiety. Two: to confirm that there is a relationship between emotion regulation and attachment representations. It is hypothesised that insecure attachment representations will be predictive of difficulties in emotion regulation; with the enmeshed attachment representations being more highly associated with emotion dysregulation than the other forms of attachment representations. Three: to investigate whether adult attachment representations contribute to difficulties in emotion regulation over and above the contribution of personality. It is hypothesised that adult attachment representations will uniquely contribute to difficulties in emotion regulation, as predicted by attachment theory. Four: to confirm and further investigate the relationship between emotion regulation and social anxiety. It is hypothesised that difficulties in emotion regulation will be predictive of social anxiety. Five: to investigate the relationship between emotion regulation and attachment representations and social anxiety. It is hypothesised that difficulties in emotion regulation will account for any relationship between social anxiety and insecure attachment representations.

Method

Participants

The participants were 77 undergraduate students at the University of Southampton, recruited from the School of Psychology research participation scheme, who received course credits for their participation. Ninety-two percent (n = 71) were registered as Psychology students, the remaining 8% (n = 6) of participants were majoring in subjects other than Psychology. 84% (n = 65) of participants were female, and 16% (n = 12) were male. Ages ranged from 18 to 25 with the mean age being 20 (SD = 1.31). 60% (n = 46) of participants reported having a partner, 5% (n = 4) of whom were cohabiting. 91% (n = 70) of participants described their ethnic background as white British, 4% (n = 3) as white European, 1% (n = 1) as white American, 1% (n = 1) as Chinese, 1% (n = 1) as Asian and 1% (n = 1) as Korean.

Measures

Adult Attachment

Attachment representations were assessed using the Attachment Style Interview (ASI; Bifulco, Moran, Ball, & Bernazzani, 2002). The ASI is a published semi-structured interview measure which assesses current adult attachment representations in relation to a person's ability to access and utilise social support, and identifies four insecure attachment profiles (enmeshed, fearful, angry-dismissive and withdrawn) and one secure profile (clearly standard). In addition, the interview is able to identify the extent to which the insecure attachment styles are dysfunctional (markedly,

moderately or mildly). The interview consists of two main parts; the first part is a behavioural measure of the person's interactions in making/ maintaining close relationships and accessing social support, and the second part measures the person's attitudes and cognitions towards interpersonal relationships. An adapted version of the demographic information questionnaire typically used with this measure was developed for the present study in order to make it suitable for a student population (Appendix 4). The ASI has shown good inter-rater reliability (ranging from .74 to .93), test-retest reliability (ranging from .57 to .63) and face validity across nine countries (Bifulco et al, 2004). In addition, the ASI has been found to have concurrent validity with another attachment measure, the Relationship Scale Questionnaire (RSQ; Griffin & Bartholomew, 1994) (Guedeney, Bifulco & Fermanian, 2007).

Emotion Regulation

Emotion regulation abilities were assessed using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). The DERS is a published 41-item self-report measure consisting of six subscales, which were developed to assess difficulties in emotion regulation. These subscales consist of: non-acceptance of emotional responses; difficulties engaging in goal-directed behaviour; impulse control difficulties; lack of emotional awareness; limited access to emotion regulation strategies; and lack of emotional clarity. The higher the score, the more difficulties in emotion regulation. The measure has good internal consistency (α = .93) and good test- retest reliability (ρ_I =.88) (Gratz & Roemer, 2004).

Social Anxiety

Symptoms of social anxiety were assessed using the Social Interaction Anxiety Scale and Social Phobia Scale (SIAS & SPS; Mattick & Clarke, 1998). The SIAS is a published 20-item self-report measure that assesses anxiety experienced in dyadic and group interactions and the SPS examines the fear of scrutiny by others. Given the measures look at different aspects of social anxiety the SIAS and SPS are widely used together and have shown good reliability and validity in a number of studies (for review see Heimberg & Turk, 2002), although the SPS has been found to be less sensitive in correctly identifying people with social anxiety disorder than the SIAS (Brown et al, 1997). In a community sample the SIAS correctly classified 82% of the sample, whereas the SPS correctly classified 73% (Heimberg et al, 1992). Together the SIAS & SPS possess high levels of internal consistency with regard to social anxiety disorder and in non-clinical samples, with Cronbach's alpha ranging from .86 to .94 (Heimberg, Mueller, Holt, Hope & Liebowitz, 1992). The measures also have good test-retest reliability (SPS, P_1=.91; SIAS, P_1=.92) (Mattick & Clarke, 1998).

Depression

The Depression Proneness Rating Scale (DPRS; Zemore, Fischer, Garratt, & Miller, 1990) was administered to control for co-morbidity of depression in social anxiety and in order to assess whether the findings were unique to social anxiety or might be associated with other forms of psychopathology. The DPRS is a published 13-item self-report measure, which measures an individual's tendency to become depressed. The DPRS has good test-retest reliability, good predictive validity and good discriminative validity (Zemore et al, 1990).

Personality

Personality traits were measured using the Big Five Personality Inventory (BFI; John & Srivastava, 1999). This is a commonly used 44-item, self-report instrument that measures five dimensions of personality (extraversion, agreeableness, conscientiousness, neuroticism and openness to new experiences). The BFI has good reliability and validity (see John & Srivastava, 1999).

Design and Procedure

This study used a within subjects, cross-sectional design. Ethical approval for the research was given by the University of Southampton, School of Psychology, Ethics Committee (Appendix 5). Participants read an information sheet and completed a consent form (Appendix 6). All participants then completed a demographic information questionnaire, following which the researcher administered the ASI, which was recorded. Following the interview the participants were given the remaining self-report measures to complete. On completion of all the measures, the participants were thanked for their time and debriefed (Appendix 7).

Results

Data Management

The ASI data was coded using the interview rating schedule (see Appendix 3 for more information). Consensus meetings with a clinician supervising the project, who is experienced in using the ASI, were held to check rater reliability and to assist in the coding of interviews that were complex or novel. The data from the self-report measures was screened for normality and skewness using Kolmogorov-Smirnov tests and by examining the central tendency and dispersion of the data. Variables that were not normally distributed were transformed using logarithmic, square root or reciprocal transformations. Four of the variables did not improve after transformation and therefore the original data was used. Correlational analyses were initially used to examine the relationships between variables. Multiple regression analyses were then used to investigate the potential predictive relationship between the variables dependent upon the hypotheses and on the results from the correlational analyses. The regressions were examined for significant outliers, unduly influential cases, homoscedasticity, independent and normally distributed residuals. In addition, Field (2005) argues that high multicollinearity (correlations of above .80) between predictors could increase the chance of a Type II error occurring, therefore all predictors were examined for multicollinearity. Variables were considered as independent predictors in the regressions if the correlations between the variables were less than .80; the variance inflation factors (VIF) were less than 10 and the tolerance statistic was below .2 (see Field, 2005). All variables met these assumptions, hence the variables were considered to measures independent constructs. Analyses were conducted using SPSS Version 14.

Descriptive Statistics

Table 1 displays the mean scores, standard deviations, and minimum/ maximum scores for all self-report questionnaires used in the study. The mean and standard deviation scores for the social anxiety measures, the SIAS and SPS, are similar to those from previous studies (e.g. Heimberg et al, 1992). 15.9% (n = 12) of the 77 participants scored above the cut off for social anxiety on the SPS[1] and 10.4% (n = 8) on the SIAS[2]. In addition, the mean and standard deviation for the BFI are similar to those found in other studies of student populations (Schutte & Malouff, 2004). The mean scores on the DERS were slightly elevated in comparison to those found by Gratz & Roemer (2004) but largely similar. Thus overall, the results obtained from the self-report measures used in this study appear to reflect those found in other student populations.

[1] Cut off was 26 or above (Peters, 2000)
[2] Cut off was 34 or above (Rodebaugh, Woods, Heimberg, Liebowitz & Schneier, 2006))

Table 1

Mean Scores, Dispersion of the Data, and Internal Consistency (Cronbach's Alpha) (N =77)

Measure	Subscale	*M*	*SD*	*Min*	*Max*	α
BFI	Extraversion	30.62	5.70	13	40	.86
BFI	Agreeableness	35.70	5.25	18	44	.77
BFI	Conscientiousness	31.03	5.90	18	45	.82
BFI	Neuroticism	24.18	6.68	9	39	.87
BFI	Openness	36.53	5.90	22	47	.76
DPRS	Total	58.10	19.30	20	119	.92
DERS	Total	84.94	18.58	49	148	.92
DERS	Nonacceptance	13.29	4.23	6	25	.78
DERS	Goals	17.70	4.09	8	25	.86
DERS	Impulse	12.18	4.87	5	27	.88
DERS	Awareness	12.30	3.46	6	21	.78
DERS	Strategies	18.65	6.65	8	36	.91
DERS	Clarity	10.69	3.44	5	22	.82
SPS	Total	16.04	10.05	1	57	.89
SIAS	Total	19.47	10.76	2	58	.87

Attachment Styles

The ASI classified 23.4% (n = 18) of the sample as clearly standard, 50.6% (n = 39) as mildly insecure, 26.0% (n = 20) as moderately insecure, and 0% as markedly insecure. The ASI also classified attachments as either standard (which includes participants with both clearly standard and with mildly insecure attachment) or non-standard (which includes participants with moderate or markedly insecure attachment). 74.0% (n = 57) of the sample were classified as having standard attachment and 26.0% (n = 20) as having a non-standard attachment. Of the participants who were classified in the insecure attachment style category, 41.6% (n = 32) were classified as enmeshed, 14.3% (n = 11) as fearful, 9.1% (n = 7) as angry-dismissive, and 11.7% (n = 9) as withdrawn.

To investigate the relationship between insecure attachment representations and social anxiety, a binary classification of standard and non-standard attachment was used. This categorisation system has been used in previous studies; for example Dymond (2007) found that it was an effective way of investigating the relationship between postnatal depression and attachment.

The Relationship Between Attachment Representation and Social Anxiety

i) The Relationship Between Insecure Attachment Representations and Social Anxiety

In order to examine the hypothesis that insecure attachment representations would be related to high social anxiety, bi-serial correlation analyses were carried out between

attachment security and the social anxiety measures, to establish the relationship between the two variables. There was a significant positive correlation between the ASI attachment security and the SIAS (r_b = .364, p (one-tailed) < .01), but no relationship between the ASI and the SPS (r_b = .128, p (one-tailed) > .05).

Tables 2 and 3 shows the attachment representations of the participants scoring over and under the social anxiety cut off on the SPS and the SIAS. Out of the 8 participants scoring above the cut off on the SIAS, 50% (n = 4) had a fearful attachment representation. On the SPS, 33% of the participants scoring above the cut off for social anxiety had a fearful attachment representation. No statistical analysis was conducted on this data, due to the low number of participants in a number of the categories.

The current findings indicate that that there is a relationship between insecure attachment representation and social anxiety, but only when the SIAS is used to measure social anxiety. As the SPS was not significantly correlated with attachment security and is less accurate at identifying social anxiety disorder than the SIAS (Heimberg et al, 1992), only the SIAS was used as an outcome variable in all of the regressions.

Table 2

Attachment Styles of Participants With and Without Socially Anxiety According to SIAS (N = 77)

Type of Attachment	Non-Socially Anxious % (*n*)	Socially Anxious % (*n*)	Total % (*n*)
Enmeshed	96.9 (31)	3.1 (1)	100 (32)
Fearful	63.6 (7)	36.4 (4)	100 (11)
Angry-Dismissive	100.0 (7)	0.0 (0)	100 (7)
Withdrawn	77.8 (7)	22.2 (2)	100 (9)
Clearly Standard	94.4 (17)	5.6 (1)	100 (18)
Total	89.6 (69)	10.4 (8)	100 (77)

Table 3

Attachment Styles of Participants With and Without Socially Anxiety According to SPS (N = 77)

Type of Attachment	Non-Socially Anxious % (*n*)	Socially Anxious % (*n*)	Total % (*n*)
Enmeshed	84.4 (27)	15.6 (5)	100 (32)
Fearful	63.6 (7)	36.4 (4)	100 (11)
Angry-Dismissive	100.0 (7)	0.0 (0)	100 (7)
Withdrawn	88.9 (8)	11.1 (1)	100 (9)
Clearly Standard	88.9 (16)	11.1 (2)	100 (18)
Total	84.4 (65)	15.6 (12)	100 (77)

ii) Relationship Between Attachment Representations and Social Anxiety, After Controlling For Depression

Social anxiety is often co-morbid with depression (Maggee, Eaton, Wittchen, McGonagle & Kessler, 1996), and given that attachment security as measured by the ASI, has itself been associated with depression (Bifulco et al, 2004; Dymond, 2007), it was important to establish whether the significant relationship between attachment security and the SIAS, was the result of a relationship between attachment and co-morbid depression. Therefore, the correlation analyses were repeated, only this time depression was partialled out. This analysis showed that the relationship between

ASI attachment security and the SIAS remained significant when the effects of depression were controlled for (r_p = .282, p (one-tailed) <. 01).

iii)The Relationship Between Personality, Attachment and Social Anxiety

In order to investigate whether attachment security contributed to social anxiety over and above that of personality traits, bi-serial correlation analyses were conducted between the ASI and the BFI and Spearman's rs correlations between the BFI, SIAS and SPS (Table 4). The personality facets that were significantly correlated with the SIAS were then added into a regression with attachment security as predictors and with SIAS as the outcome variable, using the enter method.

Table 4 shows that extraversion and agreeableness were negatively correlated with attachment security, whereas neuroticism was positively correlated with attachment security. This suggests that as extraversion and agreeableness scores increases, attachment insecurity decreases. Neuroticism was also positively correlated with both the SIAS and SPS and extraversion was negatively correlated with the SIAS and SPS. Openness was negatively correlated with only the SPS. As extraversion and neuroticism were both correlated with the SIAS, these variables were entered into a regression as predictors, along with attachment security, displayed in Table 5.

Table 4

Correlations (N = 77) Between BFI Subscales and ASI Attachment Security, SIAS and SPS

BFI Subscale	ASI Attachment Security	SIAS	SPS
Extraversion[a]	-.406**	-.278*	-.398**
Agreeableness	-.329**	-.059	-.193
Conscientiousness	-.004	-.043	-.083
Neuroticism	.267*	.352**	.327**
Openness	.105	-.190	-.250*

*$p < .05$, 2 tailed. **$p < .01$, 2 tailed.

[a]This variable was not normally distributed therefore it violated some of the assumptions needed for the bi-serial correlation with the ASI attachment security, and should be interpreted with caution.

Table 5

Summary of Regression Analysis for Variables Predicting SIAS (N = 77)

Variable	*B*	*SE B*	*ß*
Constant	6.760	0.862	
Extraversion	-0.122	0.20	-0.555***
Neuroticism	0.048	0.017	0.257**
Attachment security	0.149	0.244	0.053

Adjusted $R^2 = .511$***
* $p < .05$. ** $p < .005$. *** $p < .001$

A significant model emerged between SIAS as the outcome variable and extraversion, neuroticism and attachment security as predictors ($F_{3, 73} = 25.42$, $p < .001$). Extraversion and neuroticism were the only predictor variables that contributed significantly to the prediction of SIAS, accounting for 51.1% of the variance.

Therefore, the first hypothesis was only partially supported, as there was a relationship between attachment security and social anxiety as measured by the ASI and SIAS, even after controlling for the effects of depression, however this relationship was not present when social anxiety was measured using the SPS. Furthermore, attachment security was not a predictor of social anxiety when extraversion and neuroticism were included in the model.

The Relationship Between Attachment and Emotion Regulation

In order to examine the hypothesis that there is a relationship between emotion regulation and attachment representations, firstly correlation analyses were conducted on the ASI and the DERS total score and subscales, displayed in Table 6. Then, regression analysis was used, with the ASI as a predictor and the DERS as the outcome variable.

The primary analysis was based on the binary classification of standard and non-standard. A subsidiary analysis was conducted in which mildly insecure participants were removed from the standard category and included in the non-standard category. This was done to explore whether the presence of any level of insecurity might influence emotion regulation.

The ASI data using the binary classification of standard and non-standard was significantly positively correlated with DERS total score, and with the DERS subscales awareness, impulse and clarity. When the ASI data was re-coded as clearly standard or as any type of insecure attachment, it was significantly correlated with DERS total score, and with the subscales of non-acceptance, awareness, strategies and clarity.

Table 6

Bi-serial correlations (N = 77) Between Emotion Regulation (DERS) and Attachment (ASI)

DERS Subscales	ASI Standard or non-standard	ASI Clearly standard v's insecurity
Total	.246*	.344**
Nonacceptance	.165	.274**
Goals[a]	-.188	.069
Awareness	.267*	.288**
Impulse[a]	.225*	.173
Strategies	.143	.288**
Clarity[a]	.481**	.252*

* $p < .05$, 1 tailed. ** $p < .01$, 1 tailed.

[a]This variable was not normally distributed therefore it violated some of the assumptions needed for the bi-serial correlation, therefore it should be interpreted with caution.

Two regression analyses were conducted. In the first the DERS total score was the outcome variable, as it provides an overall index of difficulties in emotion regulation, and attachment was coded as a binary variable, (standard or non-standard) and used as a predictor. In the second, DERS was the outcome variable and the different categories of insecure attachment representations were entered as predictors. The withdrawn and dismissive attachment styles were combined because both possess avoidant strategies for managing emotions and entered as one predictor.

Table 7 displays the standardised regression coefficients (*B*) and the unstandardised coefficients (*ß*) with the standard error of these (*SE B*) for the regression analyses.

In the first analysis using the binary attachment classification, the model was not significant ($F_{1, 75} = 2.58$, $p = .11$). In the second model, which tested the influence of the different insecure attachment styles on emotion regulation, the model was significant ($F_{3, 72} = 3.76$, $p = .014$). Insecure attachment styles accounted for 13.4% of the variance in DERS total scores, but the enmeshed attachment style was the only significant individual predictor.

The second hypothesis was supported, in so far as attachment insecurity was associated with various difficulties in emotion regulation. However, when attachment insecurity was broken down into different styles only the enmeshed attachment representation significantly contributed to difficulties in emotion regulation.

Table 7

Summary of Regression Analysis for Attachment predicting DERS Total scores

Model	*B*	*SE B*	*ß*
Attachment security predicting DERS total score (*N = 77)*			
Constant	1.909	0.012	
Attachment Security	0.038	0.024	0.182
Adjusted R^2 = .033			
Attachment styles predicting DERS total score (*N* = 77)			
Constant	1.878	0.021	
Enmeshed	0.075	0.026	0.404*
Dismissive & withdrawn	0.009	0.030	0.040
Fearful	0.056	0.033	0.213
Adjusted R^2 = .134*			

*$p < .05$. ** $p < .005$. *** $p < .001$

The Relationship Between Attachment Representations, Personality and Emotion Regulation

The third hypothesis stated that attachment representations can explain some of the variance in emotion regulation difficulties over and above personality. In order to investigate this hypothesis two analyses were conducted. Firstly, the relationship between personality and emotion regulation was examined and secondly the

contribution of attachment representations and personality to difficulties in emotion regulation was investigated.

i) The Relationship Between Personality and Emotion Regulation

In order to investigate the relationship between personality and emotion regulation, correlational analyses were conducted between the five personality facets on the BFI and the DERS total score and subscales (see Table 8).

Table 8

Spearman Correlations (N = 77) Between BFI and DERS

DERS Subscales	Extraversion	Agreeable	Conscient-iousness	Neuroticism	Openness
Total	-.218	-.275*	-.205	.650**	-.217
Nonacceptance	-.104	-.048	-.127	.466**	-.237*
Goals	-.119	-.011	-.250*	.428**	-.074
Impulse	-.055	-.207	-.104	.398**	-.021
Awareness	-.118	-.255*	-.157	.148	-.358**
Strategies	-.323**	-.280*	-.157	.671**	-.129
Clarity	-.058	-.275*	-.102	.330**	-.199

*$p < .05$, 2 tailed. ** $p < .01$, 2 tailed.

All five personality facets were correlated with at least one subscale of the DERS. Agreeableness was negatively correlated with DERS total score, and the subscales of awareness, strategies and clarity. Extraversion was negatively correlated with strategies, openness was negatively correlated with non-acceptance

and awareness, and conscientiousness was negatively correlated with goals. Neuroticism was positively correlated with the total score and all but one of the subscales: including non-acceptance, goals, impulse, strategies and clarity. The correlations between neuroticism and the DERS ranged from .148 to .671; Field (2005) argues that multicollinearity between predictor variables is only likely to be a significant problem with correlations of above .800.

ii) The Contribution of Attachment Representation and Personality to Difficulties in Emotion Regulation

In order to examine the contribution of attachment representations and personality to difficulties in emotion regulation, two regression analyses were performed. Table 9 displays the standardised regression coefficients (*B*) and the unstandardised coefficients (β) with the standard error of these (*SE B*) for the regression analyses.

Firstly, the personality subscales from the BFI were entered as predictors in a regression to investigate the contribution of these variables in predicting DERS total scores. A significant model emerged between the personality facets and DERS total score ($F_{5, 71} = 12.933$, $p < 0.001$), which accounted for 47.7% of the variance in DERS. However, neuroticism was the only significant individual predictor.

Secondly, to investigate the contribution of insecure attachment representation over and the above the variation explained by neuroticism in DERS total scores, both neuroticism and ASI insecure attachment representations were

Table 9

Summary of Regression Analysis for Variables predicting Emotion Regulation (N = 77)

Variables	*B*	*SE B*	*ß*
Step 1			
Constant	1.862	0.111	
Extraversion	0.001	0.002	0.047
Agreeableness	-0.001	0.002	-0.042
Conscientiousness	-0.002	0.001	-0.145
Neuroticism	0.009	0.001	0.624***
Openness	-0.002	0.001	-0.136
Step 2			
Constant	1.694	0.031	
Neuroticism	0.008	0.001	0.613***
Enmeshed	0.044	0.020	0.236*
Dismissive & withdrawn	-0.002	0.023	-0.009
Fearful	0.023	0.026	0.090

Note $R^2 = .477$*** for Step 1; $\Delta R^2 = .488$*** for Step 2 (ps < .001). * $p < .05$. ** $p < .005$. *** $p < .001$

added into the regression using the enter method. A significant model emerged ($F_{4, 72} = 17.134$, $p < 0.001$). The inclusion of the insecure attachment representations explained a further 4.9% of the variance in DERS over and above that of neuroticism. Therefore hypothesis three was partially supported, as the enmeshed

attachment representation was a predictor of difficulties in emotion regulation, although a small one in comparison to neuroticism.

The Relationship between Emotion Regulation and Social Anxiety

In order to investigate the fourth hypothesis that social anxiety would be related to difficulties in emotion regulation, correlational analyses were used, and the results are shown in Table 10.

The SIAS was significantly positively correlated with the DERS total scores and subscales strategies and clarity. The SPS was significantly correlated with the DERS total score and the strategies subscale. This indicates that high social anxiety is associated with difficulties in emotion regulation, and in access to strategies to manage emotions. Highly socially anxious participants may also be unclear on what emotions they are experiencing (clarity). Depression in comparison is positively correlated with the subscales non-acceptance, impulse, strategies and clarity, indicating more difficulties in accepting emotions and not acting on emotional impulses, in addition to having less access to strategies and experiencing emotions as unclear.

Table 10

Spearman Correlations (N = 77) Between SIAS, SPS, DPRS and DERS

Measure	SIAS	SPS	DPRS	DERS Total	DERS Nonaccept	DERS Goals	DERS Impulse	DERS Aware	DERS Strategies	DERS Clarity
SIAS	-	.599*	.276*	.385**	.205	.156	.198	.115	.432**	.261*
SPS		-	.236*	.289*	.166	.131	.101	-.012	.316**	.175
DPRS			-	.577**	.425**	.223	.428**	.073	.540**	.225*
DERS Total				-	.769**	.627**	.672**	.425**	.831**	.432**
DERS Nonaccept					-	.311**	.398**	.403**	.606**	.302**
DERS Goals						-	.378**	.067	.522**	.052
DERS Impulse							-	.082	.522**	.240*
DERS Aware								-	.115	.347**
DERS Strategies									-	.327**
DERS Clarity										-

* $p < .05$, 2 tailed. ** $p < .01$, 2 tailed.

The Relationship Between Adult Attachment, Emotion Regulation and Social Anxiety

The fifth hypothesis that emotion regulation mediates the relationship between attachment and social anxiety, using Baron & Kenny 's (1986) mediation analysis, was not supported as attachment security (binary classification) was not significantly associated with emotion regulation and hence mediation could not be tested. Instead, the three regressions conducted investigated whether emotion regulation explained any variance in social anxiety over and above attachment security (classified as standard or non-standard). Table 11 displays the standardised regression coefficients (*B*) and the unstandardised coefficients (*ß*) with the standard error of these (*SE B*) for these regression analyses.

i) Attachment as Predictor of Social Anxiety

A significant model emerged between SIAS as the outcome variable and attachment as predictor ($F_{1, 75} = 5.921$, $p = .017$), with attachment accounting for 7.3% of the variance in SIAS.

ii) Difficulties in Emotion Regulation as Predictors of Social Anxiety

A significant model emerged between SIAS as the outcome variable and DERS total score as predictor ($F_{1, 75} = 15.481$, $p < .001$), with DERS accounting for 17.1% of the variance in SIAS.

Table 11

Summary of Regression Analysis for Variables Predicting SIAS (N = 77)

Variable	*B*	*SE B*	*ß*
Attachment predicting SIAS			
Constant	4.036	0.160	
Attachment	0.765	0.314	0.270*
Adjusted R^2 = .073*			
DERS predicting SIAS			
Constant	-6.544	2.743	
DERS Total Score	5.616	1.427	0.414***
Adjusted R^2 = .171***			
Attachment and DERS predicting SIAS			
Constant	-5.734	2.727	
Attachment	0.571	0.297	0.202
DERS Total Score	5.116	1.426	0.377***
Adjusted R^2 = .210***			

* $p < .05$. ** $p < .005$. *** $p \leq .001$

iii) Attachment Security and Difficulties in Emotion Regulation as Predictors of Social Anxiety

A significant model also emerged between SIAS as an outcome variable, and attachment and DERS total score as predictors ($F_{2, 74} = 9.864$, $p < .001$), together accounting for 21% of its variance. Although the independent contribution of attachment security was reduced when taking DERS into account, hypothesis five was not supported, as difficulties in emotion regulation were not significantly associated with attachment, hence the conditions of mediation were not met (Baron & Kenny, 1986).

Discussion

The aim of this study was to investigate the relationship between adult attachment representations, emotion regulation and social anxiety. Furthermore, unlike previous research in this area, the study aimed to see whether any observed relationships still held when personality was taken into account. I will start by discussing the findings of the five main aims of the study and then consider how these could contribute to current models of social anxiety disorder.

The Relationship Between Adult Attachment Representations and Social Anxiety

The first aim was to look at the relationship between attachment representations and social anxiety. I will start by looking at the overall relationship, then examine how the different types of attachment representations link to social anxiety, and finally I will consider the role of personality.

The results of this study partially supported previous research (e.g. Dymond, 2004; Eng, et al 2001) and demonstrated that adult attachment insecurity was associated with social anxiety, when measured by the SIAS. This relationship remained even after controlling for the effects of depression. However, the relationship between attachment security and the SPS was not significant. This finding could be due to the fact that the two scales look at different aspects of social anxiety. The SIAS measures anxiety in social interactional situations, whereas the

SPS measures anxiety in situations that involves observation by others (Heimberg, et al, 1992). Alternatively, the results might just reflect the fact that the SPS is less accurate at identifying people with social anxiety disorder (Heimberg, et al, 1992), than the SIAS. Brown et al (1997) has found that the SPS could not discriminate between social anxiety disorder and agoraphobia. It is therefore possible that the SPS was not correlated with attachment because the SPS was less accurate at measuring social anxiety. Alternatively the finding may be the result of a lack of power in the analyses, since only a small number of the participants in the study scored highly on the SPS and few participants had non-standard attachments. Nevertheless, attachment security and the SIAS were related, therefore this indicates that for some people at least attachment representations may be related to a vulnerability to social anxiety.

Previous studies have indicated that social anxiety is associated with an enmeshed/ anxious attachment representation (Dymond, 2004; Eng et al's, 2001). The strength of the current study over previous studies in this area was the use of an attachment interview which allows the identification of attachment representations that some self-report measures of attachment are unable to identity. Therefore, it was not surprising that in the current study other attachment representations such as fearful were found in participants scoring over the cut off for social anxiety on the SIAS or SPS. However, two participants had a clearly standard representation, and two participants had a withdrawn representation. The presence of participants with a clearly standard representation is consistent with Eng et al's study. It is difficult to interpret the finding that two participants had a withdrawn representation because of

the small sample size, but it does at least suggest that other types of insecure attachment representations could feature in social anxiety.

It would be surprising if fearful attachment representation were not involved in social anxiety, given that the hypothesised characteristics of the fearful attachment representation are congruent with the characteristics of social anxiety. The fearful representation is believed to be characterised by a high dependence on other people for validation of the individual's self-worth, together with fear about how other people will see one, which leads to avoidance of relationships or at least intimacy, in order to avoid the pain of potential loss or rejection (Griffin & Bartholomew, 1994). This is consistent with socially anxious individuals having a strong fear of rejection and being concerned with how other people perceive them (Wells, 1997).

It is important however, not to over-state the case for attachment in social anxiety, because in this study the personality facets of neuroticism and extraversion were highly predictive of social anxiety status. This finding was not unexpected, given that neuroticism is predictive of other anxiety disorders (Chung, Dennis, Easthope, Werrett & Farmer, 2005; Costa & McCrae, 1992), whereas extraversion is characterised by sociability (Depue & Collins, 1999). However, it was expected that attachment would be a significant predictor of social anxiety, even when extraversion and neuroticism were added to the regression model as predictors, and this hypothesis was not confirmed. This finding may partially be explained if neuroticism is considered as a form of insecurity (Noftle & Shaver, 2006), therefore able to explain the variance previously accounted for by attachment security.

Nevertheless, previous studies investigating the relationship between social anxiety and attachment have not taken into account personality, and it appears from the current findings that personality may be more important in increasing or decreasing a person's vulnerability to social anxiety than attachment.

The Relationship Between Adult Attachment Representations and Emotion Regulation Difficulties

The results supported the hypothesis that adult attachment representations would be related to difficulties in emotion regulation. Attachment insecurity was associated with people having less awareness and understanding about their emotions, less clarity in interpreting their own feelings, and overall more difficulties in emotion regulation. When participants with a clearly standard attachment representation were compared to participants with insecure attachment representations, insecurity was also associated with more difficulties in accepting emotions and having less access to effective strategies to manage these emotions. It therefore appears that even participants with a somewhat insecure attachment representation may have difficulties in emotion regulation, and perceive themselves as having less access to effective strategies for managing emotions. However, when the insecure attachment representations were used as individual predictors of difficulties in emotion regulation, only the enmeshed representation was predictive of difficulties in emotion regulation.

This finding is consistent with predictions made by attachment theory and with previous research, (Lopez, Mitchell & Gormley, 2002; Magai, Hunziker, Mesias & Culver, 2000; Mikulincer & Shaver, 2003) in that people with an enmeshed attachment style are thought to use a reactive emotion regulation strategy, whereas people with an avoidant attachment style are believed to use a deactivation emotion regulation strategy. If individuals with an avoidant style down play or suppress emotions as a way of protecting against feelings of rejection (Hazan & Shaver, 1987), self-report measures are unlikely to be able to access these difficulties, due to negative emotions being directed away from consciousness (Cassidy, 1994). This proposal is consistent with the current finding. Therefore the results of this study are supportive of previous research findings (Magai, Distel & Liker, 1995; Wei, Vogel, Ku & Zakalik, 2005; Zimmermann, 1999) that attachment security and attachment representations appear to impact on the strategies that people use to regulate their emotions.

The Relationship Between Attachment Representations, Personality Facets and Difficulties in Emotion Regulation

The results support the hypothesis that adult attachment representations did contribute uniquely to difficulties in emotion regulation, as the enmeshed representation was a significant predictor of difficulties in emotion regulation, in addition to the personality facet neuroticism. However, neuroticism explained nearly

half of the variance in difficulties in emotion regulation, whereas enmeshed attachment explained slightly less than 5%.

Again, the finding that neuroticism is highly predictive of difficulties in emotion regulation is not surprising, given that the other end of the neuroticism dimension is emotional stability (John & Srivastava, 1999). Therefore, neuroticism can be viewed as a form of emotion dysregulation. It appears that people born with a highly reactive, neurotic temperament are more vulnerable to developing an insecure attachment representation and more prone to difficulties in managing their emotions (Calkins & Fox, 1992; Crawford, Shaver & Goldsmith, 2007). However, some individuals with this temperament are able to develop a secure attachment representation (see Vaughn & Bost, 1999), and therefore, may be able to learn strategies for managing their highly reactive emotions. This suggests that some people with a neurotic disposition may not have difficulties in emotion regulation. This is supported in the current study by the neuroticism subscale of the BFI and the DERS not being fully correlated with each other. This suggests that emotion regulation is a separate construct from neuroticism, although may be influenced by neuroticism.

Neuroticism has been found to be related to a preference for using anxiety as a way of managing performance (Tamir, 2005). It is therefore possible that anxiety is used to regulate emotions when there is a deficit in these abilities. This is consistent with Borkovec, Alcaine & Behar's (2004) suggestion that anxiety can be

used as a way of processing emotional material at an abstract, conceptual level, which allows avoidance of more intense negative emotions.

The Relationship Between Emotion Regulation and Social Anxiety

The results supported the hypothesis that social anxiety would be related to difficulties in emotion regulation. Both the measures of social anxiety were related to difficulties in accessing strategies for managing emotions and overall difficulties in emotion regulation. In addition, the SIAS was related to difficulties in clarifying which emotions were being experienced. This pattern of difficulties was different to that of depression, which in addition to the above was also related to difficulties in accepting emotions, and refraining from impulsive behaviour, when experiencing negative emotions. This suggests that the current findings of social anxiety being associated with difficulties in emotion regulation are unlikely to be the result of psychopathology in general, as depression showed a different pattern of deficits. In addition Turk et al's (2005) study has also indicated that these difficulties are different to those experienced by individuals with generalised anxiety disorder.

These findings are generally consistent with Turk et al's (2005) findings that social anxiety is associated with deficits in emotion regulation. The current study did not directly measure whether participants paid less attention to emotions and were able to repair their mood. However, the current findings are in line with this as emotions were experienced as less clear, and effective strategies for managing

emotions were less accessible. The only discrepancy in the findings was that in the current study social anxiety was not associated with non-acceptance of emotions, which might have been expected if participants were fearful of emotions as in Turk et al's study.

The Relationship Between Attachment, Emotion Regulation and Social Anxiety

The study did not support the hypothesised model whereby emotion regulation mediated the relationship between attachment representations (using the binary classification) and social anxiety. For emotion regulation to be a mediator between attachment and social anxiety, a significant association between attachment and emotion regulation is assumed. When looking at attachment using the *binary* classification of standard or non-standard attachment there was not a significant association with emotion regulation. This may however have resulted from the fact that the non-standard attachment included both the enmeshed and avoidant attachment styles. The enmeshed attachment style is characterised by a high level of difficulties in ER, however people characterised by the avoidant attachment style suppress their feelings and hence would display low levels of ER difficulty. As a result when grouping these two styles together the association with emotion regulation may not show up. Future research will need to investigate the association between the different attachment styles and emotion regulation individually.

The regression analyses in the current study showed that emotion regulation explained a significant proportion of variance in social anxiety over and above the contribution of attachment style. This supports the notion that emotion regulation abilities are important in social anxiety. This is consistent with Mallinckrodt & Wei's (2005) suggestion that if a person can develop a level of emotional awareness and a sense of social self-efficacy, even if insecurely attached, the person is likely to manifest fewer psychological symptoms and problems in interpersonal functioning. It is therefore possible that if people can learn strategies to regulate their emotions, this might protect them from developing social anxiety or other psychopathology, even if they have an insecure attachment representation.

In summary the current study found that personality characteristics and emotion regulation were significantly associated with social anxiety over and above the contribution of attachment. More specifically the relative contribution of personality and emotion in explaining variance in anxiety appears greater than the contribution of attachment style. However, results of the study could not support the notion that the contribution of attachment on anxiety is mediated by emotion regulation.

How Current Findings May Relate to Models of Social Anxiety, and the Clinical Implications

Cognitive models of social anxiety, such as Clark & Wells (1995) and Rapee & Heimberg's (1997) suggest that socially anxious people use strategies such as safety behaviours as a way of trying to cope with their anxiety. This anxiety is believed to have been triggered by negative beliefs or mental representations of how they may act in an inept or unacceptable manner, which will result in rejection or humiliation by others. However, these safety behaviours are thought to interfere with social interactions. The current findings are consistent with these models, as the socially anxious individuals reported difficulties in emotion regulation, and in particular having less access to effective strategies for managing affect.

Furthermore, these difficulties in emotion regulation were found to be more important than attachment representations. It is still possible that attachment experiences lead to these difficulties in emotion regulation, given that the enmeshed attachment representation was predictive of difficulties in emotion regulation. However, it also seems neuroticism may predispose people to developing social anxiety and difficulties in emotion regulation. Regardless of the origin of these emotion regulation difficulties, the current study suggests that emotion regulation difficulties may have a role to play in the maintenance of social anxiety. This is discussed in more detail below.

Emotion regulation may impact on social interactions through the use of strategies such as safety behaviours that are used to manage anxiety. These strategies, such as disclosing less information about the self (DePaulo, Epstein & LeMay, 1990), or avoiding eye contact, are likely to make social interaction awkward (Creed & Funder, 1998). This may explain why socially anxious individuals are perceived as conveying less warmth and interest in a conversation, and manifesting fewer positive verbal behaviours than non-anxious individuals (Alden & Wallace, 1995). Furthermore, this may explain why socially anxious individuals are rated by their conversational partner as less likeable (Alden & Bieling, 1998) and perceived as different to people with low social anxiety (Papsdorf & Alden, 1998). Papsdorf & Alden found that being perceived as different increased the risk that socially anxious individuals would be rejected. The individual may learn that avoidance of social situations is the only way to contain his/ her anxiety, and to manage other people's reactions. Therefore, these difficulties in emotion regulation may have a significant impact on a person's ability to form and maintain relationships, which is likely to further reinforce the person's negative beliefs about him or her self.

Alternatively, socially anxious individuals may possess functional emotion regulation abilities, but when negative views of self are triggered, dysfunctional coping strategies are activated. This is similar to the argument over whether socially anxious individuals lack social skills or whether they are capable of effective social performance but the presence of safety behaviours in order to cope with feared catastrophes inhibits the use of effective social strategies and produces awkward and

stilted behaviour as discussed above. So for example, if a person feels ashamed about his or her ability to perform in social situations, this individual may resort to avoiding eye contact, which prevents the person from getting direct feedback from other people. In addition, this is likely to make the interaction awkward. In terms of emotional regulation, the individual may use functional strategies to target distress that is occasioned by non-social events, but use a dysfunctional set of strategies specifically in response to social distress. On the other hand, emotional regulation deficits may be non-specific and may represent learned behaviours that span different types of situation and distress.

Cognitive behaviour therapy (CBT) based on the cognitive models of social anxiety is an effective treatment for social anxiety disorder (Clark et al, 2003). However, current models do not explicitly include emotion regulation difficulties. Nevertheless, CBT may indirectly target these emotion regulation deficits through exposure to social situations where individuals can learn to tolerate their anxiety without the use of safety behaviours, which further impinge on their performance. In addition, CBT teaches individuals new strategies for managing their anxiety through techniques such as cognitive restructuring and behavioural experiments. Cognitive restructuring has been shown to be related to a more well-developed capacity to regulate emotions and to more positive relations with others, than the use of suppression as a method of emotion regulation (Gross & Oliver, 2003). This strategy is likely to reduce anxiety by encouraging clients to challenge their negative self-evaluative thoughts to more realistic, less critical thoughts about their performance, through the use of behavioural experiments or video feedback.

However, some studies on the effectiveness of group CBT for social anxiety disorder have found that over 40% of clients did not respond to the treatment (Heimberg et al, 1998). This may partially be explained by CBT being delivered in a group format. However, there may be other reasons as well. Perhaps these individuals have more difficulties in emotion regulation than others and these difficulties could prevent them from being fully able to engage in the treatment? Future research is needed to explore whether CBT does impact on emotion regulation abilities, and whether people for whom CBT currently fails to achieve optimal benefit is related to their emotion regulation abilities.

Study Limitations and Future Research

The results of this study raise some interesting questions that require further investigation; however the research does possess a number of limitations. As the study utilises a retrospective cross sectional design it is not possible to establish the direction of causation between the variables. So for example, it cannot establish whether social anxiety caused the person to have difficulties in emotion regulation or whether difficulties in emotion regulation contributed to the development of social anxiety. Therefore, research using longitudinal and prospective methodologies is needed before firm conclusions can be drawn. Likewise the current study relied purely on participants reporting on their experiences through a semi-structured interview, which could have been confounded by participants wanting to make a good impression; therefore the use of peer reports may have increased the validity of

the findings. Furthermore, some of the self-report measures appeared to overlap in content, making it difficult to draw firm conclusions about whether personality facets were more important than attachment representation in explaining variance in social anxiety and emotion regulation. Therefore further research may need to consider the use of different methods for collecting the data, such as the use of a structured clinical interview for assessing social anxiety. Finally, this study used a self-selected sample of mainly female, undergraduate students. The prevalence rates of attachment representations found in this study using the ASI may not have been representative of attachment representations in student or in the general population (Mickelson, Kessler & Shaver, 1997; Mikulincer & Horesh, 1999). Therefore further research needs to be conducted on more representative samples of the general population in terms of age, socio-economic status, level of education and gender. It would also be important to replicate this study on a clinical sample who met DSM IV criteria for social anxiety disorder.

Summary and Conclusions

This study supports the findings that social anxiety is associated with difficulties in emotion regulation, and in particular in having access to effective strategies for managing emotions. It is therefore possible that emotion regulation deficits are involved in the maintenance of social anxiety disorder.

The results support the idea that insecure attachment representations are related to difficulties in emotion regulation. These difficulties in emotion regulation include difficulties in identifying and being clear about what emotion is being experienced. However, only the enmeshed attachment representation was predictive of difficulties in emotion regulation, which is consistent with the idea that these individuals use a hyperactivation strategy for emotion regulation. The enmeshed attachment representation was predictive of difficulties in emotion regulation, in addition to neuroticism. This suggests that attachment representations, as well as personality traits can contribute to the development of emotion regulation difficulties.

Finally, this study supported the idea that difficulties in emotion regulation and the personality facet of neuroticism are important in predicting social anxiety. . Difficulties in emotion regulation accounted for a significant proportion of variance in social anxiety over and above the contribution of attachment representations. Hence, it is important to consider the emotion regulation deficits that may have been developed through attachment experiences when explaining the development or maintenance of social anxiety. Likewise, the contribution of attachment style over and above neuroticism when explaining variance in social anxiety was not significant, suggesting that personality may be more important in social anxiety than attachment representations.

Although this study highlights some interesting findings there are a number of limitations to the research, as previously discussed. Thus, research is needed

which addresses these methodological problems and which investigates the stability of the findings over time. However, despite these limitations the study demonstrates that difficulties in emotion regulation might play a role in the maintenance or even in the development of social anxiety. These findings may have implications for treatment as clinicians need to be aware that socially anxious individuals could have deficits in emotion regulation and need support in accessing strategies for managing their emotions.

References

Alden, L. E., & Bieling, P. (1998). Interpersonal consequences of the pursuit of safety. *Behaviour Research and Therapy*, 36, 53-64.

Alden, L. E., & Taylor, C. T. (2004). Interpersonal processes in social phobia. *Clinical Psychology Review*, 24, 857-882.

Alden, L. E., & Wallace, S. T. (1995). Social phobia and social appraisal in successful and unsuccessful social interactions. *Behaviour Research and Therapy* 33(5), 497-505.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology,* 51, 1173-1182.

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology,* 61(2), 226-244.

Berlin, L. J., & Cassidy, J. (1999). Relations among Relationships: Contributions from attachment theory and research. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of Attachment: Theory, research and clinical applications* (pp.688-712.) New York: The Guildford Press.

Bifulco, A. (2002). Attachment style measurement: A clinical and epidemiological perspective. *Attachment & Human Development*, 4(2), 180-188.

Bifulco, A., Figueiredo, B., Guedeney, N., Gorman, L. L., Hayes, S., Muzik, M., Glatigny-Dallay, E., Valoriani, V., & Kammerer, M. H. (2004). Maternal attachment style and depression associated with childbirth: preliminary results from a European and US cross-cultural study. *British Journal of Psychiatry*, 184, s31-s37.

Bifulco, A., Lillie, A., Ball, B., & Moran, P. (2000). *Attachment style interview (ASI) training manual.* 2nd Edition. London: University of London.

Bifulco, A., Mahon, J., Kwon, J. H., Moran, P. M., & Jacobs, C. (2003). The vulnerable attachment style questionnaire (VASQ): an interview-based measure of attachment styles that predict depressive disorder. *Psychological Medicine*, 23, 1099-1110.

Bifulco, A., Moran, P. M., Ball, C., & Bernazzani, O. (2002). Adult attachment style: I. Its relationship to clinical depression. *Social Psychiatry and Psychiatric Epidemiology*, 37,50-59.

Bögels, S. M., Oosten, A., Muris, P., & Smulders, D. (2001). Familial correlates of social anxiety in children and adolescents. *Behaviour Research and Therapy*, 39, 273-287.

Borkovec, T. D., Acaine, O., & Behar, E. (2004). Avoidance theory of worry and generalised anxiety disorder. In R.G. Heimberg, C.L. Turk, & D.S. Mennin (Eds.), *Generalised anxiety disorder: Advances in research and practice* (pp. 77-108). New York:Guildford Press.

Bowlby, J. (1969). *Attachment and loss. Vol. 1. Attachment.* New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss. Vol. 2. Separation: Anxiety and anger* Harmondsworth, Middlesex: Penguin.

Bowlby, J. (1980). *Attachment and loss. Vol. 3. Loss: Sadness and depression.* New York: Basic Books.

Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory.* London: Brunner-Routledge.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J.A. Simpson & W.S. Rholes (Eds.), *Attachment theory and close relationships* (pp.46-76). New York: The Guildford Press.

Bretherton, I., & Munholland, K. A. (1999). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, research and clinical applications* (pp.89-115.) New York: The Guildford Press.

Brown, E. J., Turovsky, J., Heimberg, R. G., Juster, H. R., Brown, T. A., & Barlow, D. H. (1997). Validation of the Social Interaction Anxiety Scale and the Social Phobia Scale across the anxiety disorders. *Psychological Assessment*, 9, 21-27.

Bruch, M. A., & Heimberg, R. G. (1994). Differences in perceptions of parental and personal characteristics between generalised and nongeneralized social phobics. *Journal of Anxiety Disorders*, 8(2), 155-168.

Bruch, M. A., Fallon, M., & Heimberg, R. G. (2003). Social phobia and difficulties in occupational adjustment. *Journal of Counseling Psychology*, 50(1), 109-117.

Calkins, S. D., & Fox, N. A. (1992). The relations among infant temperament, security of attachment, and behavioural inhibition at twenty-four months. *Child Development*, 63, 1456-1472.

Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88(3), 510-531.

Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. In N. Fox (Ed.), *The development of emotion regulation: Biological and biobehavioral considerations. Monographs of the Society for Research in Child Development* (Serial No. 240, Vol.59, Nos. 2-3).

Cassidy, J. (1999). The nature of the child's Ties. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment. Theory, research and clinical applications* (pp.3-20). London: The Guildford Press.

Chung, M. C., Dennis, I., Easthope, Y., Werrett, J., & Farmer, S. (2005). A multiple-indicator multiple-cause model for posttraumatic stress reactions: Personality, coping and maladjustment. *Psychosomatic Medicine,* 67(2), 251-259.

Clark, D. M., Ehlers, A., McManus, F., Hackmann, A., Fennell, M., Campbell, H., Flower, T., Davenport, C., Louis, B. (2003). Cognitive therapy versus fluoxetine in generalized social phobia: A randomized placebo-controlled trial. *Journal of Consulting and Clinical Psychology*, 71(6), 1058-1067.

Clark, D. M. & Wells, A. (1995). A cognitive model of social phobia. In R.G. Heimberg, M. Liebowitz, D. Hope & F. Schneier (eds), *Social Phobia: Diagnosis, Assessment and Treatment.* New York: Guildford.

Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion and behaviour. *Journal of Personality and Social Psychology*, 71, 810-832.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58(4), 644-663.

Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13, 653-665.

Crawford, T. N., Shaver, P. S., & Goldsmith, H. H. (2007). How affect regulation moderates the association between anxious attachment and neuroticism. *Attachment and Human Development,* 9(2), 95-109.

Creed, A. T., & Funder, D. C. (1998). Social anxiety: from the inside and outside. *Personality and Individual Differences*, 25, 19-33.

DePaulo, B. M., Epstein, J. A., & LeMay, C. S. (1990). Responses of the socially anxious to the prospect of interpersonal evaluation. *Journal of Personality*, 58(4), 623- 640.

Depue, R. A., & Collins, P. F. (1999). Neurobiology of the structure of personality: Dopamine, facilitation of incentive motivation, and extraversion. *Behavioural and Brain Sciences*, 22 (3), 491-569.

Dymond, M. (2004). *The influence of adult attachment representations, early maladaptive schemas and emotional regulation in social anxiety.* Ph.D dissertation, Department of Psychology, University of Southampton, Southampton, UK.

Dymond, M. (2007). Predictors of Postpartum Depression and Moderators of Outcome Following a Preventive Intervention. Ph.D dissertation. School of Psychology, University of Reading, Reading, UK.

Eng, W., Heimberg, R. G, Hart, T. A., Schneier, F. R., & Liebowitz, M. R. (2001). Attachment in individuals with social anxiety disorder: The relationship among adult attachment styles, social anxiety and depression. *Emotion,* 1(4), 365-380.

Field, A. (2005). *Discovering statistics using SPSS.* 2nd Edition. London: Sage Publications Ltd.

Fuendeling, J. M. (1998). Affect regulation as a stylistic process within adult attachment. *Journal of Social and Personal Relationships*, 15(3), 291-322.

Furmark, T. (2002). Social Phobia: Overview of community surveys. *Acta Psychiatrica Scandinavica*, 105, 84-93.

George, C., Kaplan, N., & Main, M. (1985). *Adult Attachment Interview.* Unpublished manuscript, University of California at Berksley.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26 (1), 41-54.

Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology,* 67(3), 430-445.

Gross, J. J., & Oliver, J. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348-362

Guedeney, N., Bifulco, A., & Fermanian, J. (2007). *The relationship between social support and attachment style in self-report and interview based approaches.* Manuscript submitted for publication.

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology,* 52(3), 511-524.

Heimberg, R. G., Liebowitz, M. R., Hope, D. A., Schneier, F. R., Holt, C. S., & Welkowitz, L. A. Juster, H. R., Campeas, R., Bruch, M. A., Cloitre, M., Fallon, B., & Klein, D. F. (1998). Cognitive behavioural group therapy vs Phenelzine therapy for social phobis: 12 week outcome. *Archives of General Psychiatry*, 55(12), 1133-1141.

Heimberg, R. G., Mueller, G. P., Holt, C. S., Hope, D. A., & Liebowitz, M. R. (1992). Assessment of anxiety in social interaction and being observed by others: The social interaction anxiety scale and the social phobia scale. *Behavior Therapy*, 23, 53-73.

Heimberg, R. G., & Turk, C. L. (2002). Assessment of social phobia. In R. G. Heimberg & R. E. Becker. *Cognitive-behavioral group therapy for social phobia: Basic mechanisms and clinical strategies* (pp. 107-126). New York: Guildford Press.

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp.102-138). New York: Guildford Press.

Kobak, R. (1999). The emotional dynamics of disruptions in attachment relationships. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment. Theory, research and clinical applications* (pp.21-43). London: The Guildford Press.

Lopez, F. G., Mitchell, P., & Gormley, B. (2002). Adult attachment orientations and college student distress: Test of a mediational model. *Journal of Counselling Psychology,* 49(4), 460-467.

Lopes, P. N., Salovey, P., Côte, S., & Beers, M. (2005). Emotion regulation abilities and the quality of social interaction. *Emotion*, 5(1), 113-118.

Magai, C., Distel, N., & Liker, R. (1995). Emotion socialization, attachment and patterns of adult emotional traits. *Cognition & Emotion,* 9, 461-481.

Magai, C., Hunziker, J., Mesias, W., & Culver, L. C. (2000). Adult attachment styles and emotional biases. *International Journal of Behavioural Development*, 24(3), 301-309.

Maggee, W. J., Eaton, W. W., Wittchen, H., McGonagle, K. A., & Kessler, R. C. (1996). Agoraphobia, simple phobia and social phobia in the national comorbidity survey. *Archives of General Psychiatry*, 53, 159-168.

Mallinckrodt, B., & Wei, M. (2005). Attachment, social competencies, social support, and psychological distress. *Journal of Counselling Psychology*, 52(3), 358-367.

Mattick, R. P., & Clarke, J.C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy*, 36, 455-470.

Mickelson, K. D., Kessler, R. C., & Shaver, P. R. (1997). Adult attachment in a nationally representative sample. *Journal of Personality and Social Psychology*, 73(5), 1092-1106.

Mikulincer, M., & Horesh, N. (1999). Adult attachment style and the perception of others: The role of projective mechanisms. *Journal of Personality and Social Psychology*, 76 (6), 1022-1034.

Mikulincer, M., & Orbach, I. (1995). Attachment styles and repressive defensiveness: The accessibility and architecture of affective memories. *Journal of Personality and Social Psychology,* 68(5), 917-925.

Mikulincer, M., & Shaver, P. R (2003). The attachment behavioural system in adulthood: Activation psychodynamics and interpersonal processes. In M. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol.35, 56- 146). New York: Academic Press.

Mikulincer, M., Shaver, P. R., Gillath, O., & Nitzberg, R. A. (2005). Attachment, caregiving, and altruism: Boosting attachment security increases compassion and helping. *Journal of Personality and Social Psychology*, 89(5), 817-839.

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003) Attachment theory and affect regulation: The dynamics, development and cognitive consequences of attachment-related strategies. *Motivation and Emotion,* 27 (2), 77- 102.

Mills, R. S. L., & Rubin, K. H. (1998). Are behavioural and psychological control both differentially associated with childhood aggression and social withdrawal? *Canadian Journal of Behavioural Science*, 30(2), 132-136.

Moore, P. S., Whaley, S. E., & Sigman, M. (2004). Interactions between mothers and children: impacts of maternal and child anxiety. *Journal of Abnormal Psychology,* 113(3), 471-476.

Noftle, E. E., & Shaver, P. R. (2006). Attachment dimensions and the big five personality traits: Associations and comparative ability to predict relationship quality. *Journal of Research in Personality*, 40, 179-208.

Papsdorf, M., & Alden, L. (1998). Mediators of social rejection in social anxiety: similarity, self-disclosure and overt signs of anxiety. *Journal of Research in Personality*32, 351-369.

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioural model of anxiety in social phobia. *Behaviour Research and Therapy,* 35(8), 741-756.

Rapee, R. M., & Melville, L. F. (1997). Recall of family factors in social phobia and panic disorder: Comparison of mother and offspring reports. *Depression and Anxiety*, 5, 7-11.

Rapee, R. M., & Spence, S. H. (2004). The etiology of social phobia: Empirical evidence and an initial model. *Clinical Psychology Review*, 24, 737-767.

Reber, A. S. (1995). *The penguin dictionary of psychology.* London: Penguin Group.

Rodebaugh, T. L., Woods, C. M., Heimberg, R. G., Liebowitz, M. R., & Schneier, F. R. (2006). The factor structure and screening utility of the Social Interaction Anxiety Scale. *Psychological Assessment,* 18(2), 231-237.

Rubin, K. H., Nelson, L. J., Hastings, P., & Asendorpf, J. B. (1999). Transaction between parents' perceptions of their children's shyness and their parenting styles. *International Journal of Behavioral Development*, 23, 937-957.

Schutte, N. S., & Malouff, J. M. (2004). University student reading preferences in relation to the Big Five Personality dimensions. *Reading Psychology*, 25, 273-295.

Sroufe, L. A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development*, 7(4), 349-367.

Shaver, P. R., & Hazan, C. (1993). Adult romantic attachment. Theory and evidence. *Advances in Personal Relationships*, 4, 29-70.

Stopa, L., & Clark, D. M. (1993). Cognitive processes in social phobia. *Behaviour Research and Therapy*, 31, 255-267.

Tamir, M. (2005). Don't worry, be happy? Neuroticism, trait-consistent affect regulation, and performance. *Journal of Personality and Social Psychology*, 89(3), 449-461.

Turk, C. L., Heimberg, R. G., Luterek, J. A., Mennin, D. S., & Fresco, D. M. (2005). Emotion dysregulation in generalized anxiety disorder: A comparison to social anxiety disorder. *Cognitive Therapy and Research*, 29(1), 89-106.

Vaughn, B. E., & Bost, K. K. (1999). Attachment and temperament: Redundant, Independent, or interacting influences on interpersonal adaptation and personality development? In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment. Theory, research and clinical applications* (pp.198-225). London: The Guildford Press.

Vertue, F. M. (2003). From adaptive emotion to dysfunction: An attachment perspective on social anxiety disorder. *Personality and Social Psychology Review*, 7(2), 170-191.

Wei, M., Vogel, D. L., Ku, T., & Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology,* 52(1), 14-24.

Wells, A. (1997). *Cognitive therapy of anxiety disorders. A practice manual and conceptual guide.* Chichester: John Wiley & Sons.

Wells, A. & Clark, D. M. (1997). Social phobia: a cognitive approach. In D.C.L. Davey (Ed.),*Phobias: A handbook of description, treatment and theory.* Chichester: Wiley.

Zemore, R., Fischer, D. G., Garratt, L. S., & Miller, C. (1990). The depression proneness rating scale: Reliability, validity and factor structure. *Current Psychology: Research and Reviews,* 9, 255-263.

Zimmermann, P. (1999). Structure and functions of internal working models of attachment and their role for emotion regulation. *Attachment and Human Development*, 1(3), 291-306.

List of Appendices

Appendix 1	Instructions to authors Journal of Social and Personal Relationships
Appendix 2	Instructions to authors Attachment and Human Development
Appendix 3	Permission to use measures and ASI scoring
Appendix 4	Demographic questionnaires
Appendix 5	University of Southampton, School of Psychology, Ethics Committee approval, Research Governance approval and Professional Indemnity Insurance
Appendix 6	Participant information sheet and consent form
Appendix 7	Participant debriefing sheet

Appendix 1

Instructions to authors Journal of Social and Personal Relationships

Journal of Social and Personal Relationships

Published in Association with International Association for Relationship Research

Editor:
Paul A Mongeau Arizona State University, USA

Frequency: Bi-monthly

ISSN: 0265-4075

eISSN: 1460-3608

Months of Distribution: February - April - June - August - October - December

Current Volume: 24
Current Issue: 4

Subject Areas:
- Interpersonal Relations
- Interpersonal Communication

Manuscript Submission Guidelines:

Information for Contributors

Manuscript submission

All submissions should be made online at the ***JSPR* SAGETRACK** website.

Please log onto the website. If you are a new user, you will first need to create an account. This is a 3-step system that takes a matter of minutes to set up. Log-in information is sent via email immediately upon completion. Full instructions for uploading the manuscript are provided on the website. If you have already created an account but have forgotten your details type your email address in the 'Password Help' to receive an emailed reminder.

Submissions should be made via the Author Center and the 'Click here to Submit a New Manuscript' option. For questions and a user guide, please use the 'Get Help Now' button at the top right of every screen. Further help is available through ScholarOne's® Manuscript Central™ customer support at +1 434-817-2040 x 167. If you would like to discuss your paper prior to submission, please contact the Editor, **Dr Paul A. Mongeau**, at the following email address: **JSPR@ASU.edu**

Please ensure that your Microsoft Word or RTF document does NOT include a title page, an abstract, or page numbers; the JSPR SAGETRACK system will generate them for you, and then convert your manuscript to PDF for peer review. Furthermore, it is imperative that authors remove from their submissions any information that will identify them or their affiliations to reviewers.

All correspondence, including notification of the Editor's decision and requests for revisions, will be by e-mail.

Revisions

Authors submitting revised manuscripts should follow the instructions above to submit through the SAGETRACK system. However, if the first versions were submitted prior to SAGETRACK, the system will not know automatically about the previous version. In such cases, authors should check the 'Has this manuscript been submitted previously?' box and give the previous manuscript number in the space below. (If the previous version was submitted through the SAGETRACK system, following the instructions to submit a revised manuscript will automatically associate your revised version with the original submission) Authors of all revised submissions should when prompted provide information explaining the changes in your manuscript. As this will be provided to reviewers it is important that authors do not identify themselves in these responses.

General guidelines

The Journal of Social and Personal Relationships welcomes submission of articles on all aspects of social and personal relationships from any academic discipline on the understanding that these are original articles not under consideration by other journals. Articles may deal with voluntary or non-voluntary relationship forms and may use qualitative or quantitative methods. Articles using qualitative methods are particularly encouraged. Empirical, review, and theoretical articles are invited. Manuscripts will be sent anonymously for review by independent referees and so all material identifying the author should be confined to the title page. Papers from graduate students or recent PhDs are especially welcomed and will, if the authors explicitly request it and submit one extra copy, receive extra attention (i.e. one additional reviewer).

Copyright

It is a condition of publication that authors assign copyright in their articles and abstracts to SAGE Publications Ltd. Authors are responsible for obtaining copyright permission for reproducing any illustrations, tables, figures or lengthy quotations previously published elsewhere.

Format

When submitting a paper please follow the style of the Publication Manual of the American Psychological Association (5th edition).

Manuscripts: The title page of an article should contain only:

(1) the title of the article

(2) a short title not exceeding 40 letters and spaces, used for the running heads;

Abstracts: An abstract of no more than 120 words should follow the title page on a separate page.

Keywords: Up to 6 keywords should be included.

Footnotes: or endnotes, apart from the opening page Author Note and correspondence address, should not be used.

References: The Journal particularly cautions authors to the judicious, precise, and scholarly (as distinct from bibliographic) use of references. JSPR therefore encourages authors to balance conciseness in the use of references with the requirements of rigorous scholarship by using references to make points rather than to indicate familiarity. Citations that are the subject or direct object of verbs are preferred (e.g. 'Dindia (1994) argues that . . .'), as are those citations that are incorporated into the grammatical structure of sentences (e.g. 'this finding supports the arguments of Pettit and Mize (1993) who claimed that . . .'). ESPECIALLY AND VERY STRONGLY DISCOURAGED are long, undifferentiated lists of references tacked on to the end of sentences. If all these references make the same point, then one example will suffice and if they make different points then the differences need to be discussed. All references cited in the text should be collated into a single alphabetical list at the end of the article, using the style and format of the most recent edition of the *Publication Manual of the American Psychological Association* (APA).

Tables and figures: Should be numbered separately and have short descriptive titles. The position of the table or figure in the text should be indicated in the text e.g. 'Table 3 about here'. Tables and figures will only be presented if they are necessary for the presentation and clarity of results. Half-tone figures should be presented in camera-ready format to fit the page size of 110mm wide x 187mm deep, and if possible, as EPS files (all fonts embedded) or TIFF files, 800 dpi - b/w only.

Proofs and Electronic offprints

Authors will receive proofs of their articles for checking prior to publication. After publication, an e-mail detailing access to a restricted quantity pdf will be sent to the corresponding author of each article along with a copy of the printed journal for each author.

Contacting the Editor

If you do not have e-mail access, please send three copies of your manuscript (and an electronic version in Word format) to:

Dr. Paul A. Mongeau
Hugh Downs School of Human Communication,
P.O. Box 871205, Arizona State University,
Tempe, AZ 85287-1205, USA
Phone: (480) 965 3773

Book Reviews

Books and suggestions for reviews should be sent to:

Dr. Mary Lynn Miller Henningsen
Department of Communication
Northern Illinois University
DeKalb, IL 60115
USA

E-mail: henningsen@niu.edu

English Language Editing Services: Please click here for information on professional English language editing services recommended by SAGE publications.

Appendix 2

Instructions to authors Attachment and Human Development

Attachment & Human Development

2006 Impact Factor 1.625

ISSN: 1469-2988 (electronic) 1461-6734 (paper)
Publication Frequency: 4 issues per year
Subjects: Attachment; Attachment Issues - Adult; Child Care & Child Protection; Developmental Psychology; Psychological Disorders; Psychological Disorders - Adult;
Publisher: Routledge

Instructions for Authors

Note to Authors:** please make sure your contact address information is clearly visible on the **outside** of all packages you are sending to Editors.

EMPIRICAL REPORTS

1) The paper should conform to APA standards, with a legible abstract (100-150 words), followed by sections that include an introduction, method, results, and discussion.

THEORY/REVIEW PAPERS

2) The paper should make an original, testable and/or useful extension/revision to theory and previous literature concerning attachment processes and human development.

CLINICAL CASE-STUDIES

3) Authors should provide an account of previous clinical theory in an organized and up-to-date manner distinct from the clinical case material. Further, the clinical case material should occupy no more than a third of the paper. The first third should include only relevant background theory, while the final third should aim to discuss the descriptive presentation of the clinical case material against the background of existing theories and/or modifications needed to accommodate the clinical material.

ALL SUBMISSIONS should include an abstract, and ordinarily be about 6,000 words in length, not exceeding 7500 words in total, though occasionally longer papers are considered. In order to facilitate blind peer review, authors are encouraged to prepare a cover sheet that includes identifying details not included in the manuscript which will be

sent out for review, less the cover sheet. Three copies of the submitted manuscript should be sent to:

Howard Steele, Ph.D.
Editor - ***Attachment and Human Development***
Psychology Department
New School University for Social Research
65 Fifth Avenue, Room 360
New York, N.Y., 10003
USA

E-mail submissions to the Editor are also welcome; please send an electronic copy of your manuscript to **steeleh@newschool.edu**.

Free article access: Corresponding authors will receive free online access to their article through our website (**www.informaworld.com**) and a complimentary copy of the issue containing their article. Reprints of articles published in this journal can be purchased through Rightslink® when proofs are received. If you have any queries, please contact our reprints department at **reprints@tandf.co.uk**

Appendix 3

Permission to use measures and scoring of ASI

Date: Mon, 13 Feb 2006 09:43:27 -0800
From: Paulette Comeau <pcomeau@berkeley.edu>
To: sw504@soton.ac.uk
Subject: BFI

February 13, 2006

Dear Sarah Worden:

Your project sounds very interesting, and you are welcome to use the BFI--see information given below.

In addition, have you seen the Gross & John Emotion Regulation Questionnaire? It would seem directly relevant to your project, though it measures chronic or habitual regulation strategy use, rather than "ability." The relevant references for you to consider are:

Gross, J. .J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. Journal of Personality and Social Psychology, 85, 348-362.

John, O.P., & Gross, J.J. (2004). Healthy and unhealthy emotion regulation strategies: Personality processes, individual differences, and life-span development. Journal of Personality., 72, 1301-1333.

Best of luck with your research! I am looking forward to hearing about your findings.
Professor John.

Professor John also said, "You are welcome to use the BFI so long as it is used for research and non-profit use, and I'd love to hear about your findings. Best wishes."

Professor John also asked me to give you the following information:

Benet-Martinez, V. and John, O.P. 1998. Los Cinco Grandes Across Cultures and Ethnic Groups: Multitrait Multimethod Analyses of the Big Five in Spanish and English. Journal of Personality and Social Psychology, 75(3), 729-750.

Table 3 lists the items scored for each factor; items with negative loadings are reversed-scored. Table 4 Note indicates how to compute mean ratings of the items on each scale. Item order and questionnaire are on p. 749.

John, O.P. and Srivastava, S. (1999). The Big Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives. In L. A. Pervin & O. P. John (Eds.), Handbook of Personality: Theory and Research. Second Edition (pp.102-138). New York: The Guilford Press.

Page 132 lists the items and the scoring scheme.

Best regards,
Paulette Comeau

Assistant, Department of Psychology
University of California, Berkeley
3210 Tolman Hall # 1650
Berkeley, CA 94720-1650
Phone: (510) 643-7286
E-mail: pcomeau@berkeley.edu
Fax: (510) 642-5293
Work days/hours: Mon, Tue,
Thurs, Fri, 9 a.m. to 4 p.m.

Date: Thu, 26 Jan 2006 11:56:35 EST
From: KLGratz@aol.com
To: sw504@soton.ac.uk
Subject: Re: Difficulties in Emotion Regulation scale
Part(s): 2 DERS final version 5-11-03.doc application/octet-stream 40.65 KB

Hi Sarah,

Attached is a copy of the DERS. Feel free to use it in your research if it meets your needs.

Best of luck in your research,
Kim

****
Kim L. Gratz, PhD
Research Assistant Professor
Director, Personality Disorders Division
Center for Addictions, Personality, and Emotion Research (CAPER)
Department of Psychology
University of Maryland
College Park, MD 20742
Office: (301) 405-3551
Cell: (617) 688-0435
Fax: (301) 405-3223
Website: www.addiction.umd.edu

Hi Sarah and Lusia,

I have heard back from Toni Bifulco - see email below - she is happy for me to train Sarah in the ASI. Alternatively, there is a course at end of March if you feel it would be better to get the official training.

Maret

PS I have put the Baron and Kenny (1986) paper on mediators/moderators & the Zemore et al (1990) paper on DPRS in the post to you both today - sorry it's taken me so long to get round to it.

Dr Maret Dymond

Chartered Clinical Psychologist

Psychological Services

email: <mailto:maret.dymond@wht.nhs.uk> maret.dymond@wht.nhs.uk

-----Original Message-----
From: Bifulco A [mailto:A.Bifulco@rhul.ac.uk]
Sent: 14 February 2006 15:52
To: Dymond Maret
Subject: RE: ASI

Dear Maret

Glad to hear all is well with you. Happy for you to use the ASI in your clinical work - would be very interested in how useful you find it and whether there is a niche for us to provide training for clinicians in this area. We are currently using an adapted training package for adoption-fostering practitioners which is proving very succesful!

As regards research training - we run 2 a year and the next is in Sept. We also run ones for social workers on a regular basis - next one end of March. Your student can come on either but expressed a preference for the research one.

If you want to train her you can. We have made some useful ammendments to the training package to aid reliability and now get all materials printed which makes them look posh. But as long as you check her reliability etc it should not be a problem.

(paragraph deleted)

all best wishes

Toni

Antonia Bifulco, PhD
Professor in Health and Social Care
Lifespan Research Group
Royal Holloway, University of London
11, Bedford Square
London WC1B 3RF

Tel +44 (0) 207 307 8615

www.rhul.ac.uk/Health-and-SocialCare/Research/LRG.html

Scoring the ASI

The researcher undertook training in the ASI during the period July 2006 – October 2006.

The ASI is scored by using a training manual, which contains the ratings scales for each section and examples of how to code the interview. The first part of the interview looks at the participants support figures. These support figures are rated on a four point scale for how much the participant confides in the support figure, how much emotional support the support figure provides, the quality of his/ her interaction (negative and positive) and how attached the participants feel to the support figure. These ratings are then used to score and code the overall quality of the relationship, by matching the profile to examples in the manual. This is repeated for the two or three support figures discussed in the interview. The overall quality of the relationships of all the support figures are then considered and matched to profiles provided in the manual to decide how secure the person is in relationships, which is again rated on a four point scale (1 meaning a marked ability to make and maintain relationships, with 4 little or no ability to make and maintain relationships). A score of 1 or 2 gives the participant a standard attachment, whereas a score of 3 or 4 gives the participant a non-standard attachment.

The second part of the ASI looks at seven attitudinal scales, which investigate whether the participant is able to trust other people, any attitudinal constraints that prevent the person being able to get close to other people, fears of intimacy, self-reliance, desire for engagement, tolerance of separation and anger in relationships. These scales are again rated on either a 3 or 4 point scale. The patterns of these ratings are then matched to profiles to determine the person's attachment style.

Regular consensus meetings were held to check on the reliability of the scoring and to clarify and resolve any difficulties in rating participants.

Appendix 4

Demographic questionnaires

Study Number: 4602
Participant Number: .....

Title of Project: **Relationships and experiences of emotions**

DEMOGRAPHIC DETAILS

1. Surname/ Family Name: .....

2. First Name/ Given Name: .....

6. Email address: .....

Or if you prefer to be contacted by telephone or by post please supply your telephone number and / or address:

7. Student number: .....

8. Department: .....

9. Qualification studying for (e.g. BSC): .....

10. Subject (e.g. Psychology): .....

11. Year of study (e.g. 2nd): .....

12. Have you ever had a psychological problem (e.g. depression, anxiety)

Yes / NO

If yes, have you had treatment? Yes / NO

What sort of treatment did you have? (e.g. medication, Cognitive behavioural Therapy etc) .....

Study Number: 4602
Participant ID: _____

Title of Project: Relationships and experiences of emotions

DEMOGRAPHIC DETAILS

- What is your date of birth? _____
- Gender: Male / Female
- What is your marital status?
  SINGLE/ MARRIED/ SEPARATED/ DIVORCED/ COHABITING/ WIDOWED

  Since when? _____

If single:

- Do you have a boy /girlfriend? YES / NO

  If yes:
  - How long have you known them for? _____

- Have you ever been divorced / separated or widowed? YES / NO

  If yes:
  - When was that/ How old were you? _____

  - Did you leave, did they leave, or was it mutual? _____

- Have you ever lived with anyone (else) in the past? YES/ NO

  If yes:
  - How long for? _____

  - When was this/ How old were you? _____

  - When did you separate/ How old were you? _____

  - Why did you separate, did you/ they leave, was it mutual? _____

- Do you have any children? (If so, how many?) _____
- How many people are living in the present household? _____

  - Who is that?
  - Do they live here all of the time?

Name	*Relationship*	*Occupation*	*Age*	*Frequency Of stay*
i)				
ii)				
iii)				
iv)				
v)				

- Do you see any relatives? YES / NO

  If yes:
  - How often?

  If relevant:
  - What about in-laws?

Name/ relationship	*Visual*	*Non-visual*	*Location*	*Age*
i)				
ii)				
iii)				
iv)				
v)				

- Is there anyone (family or friends) among all these people whom you feel particularly close to? Anyone else?_____

- If you had a problem of some sort, with whom would you want to discuss it? _____

If more than one:
- Who would be the first? _____

If not mentioned:
- What about your partner? _____

Anyone else? _____

If relevant:
- What about…? *Check friends in Q8 above*

If there are no confidants, establish name of main friend i.e. no confiding but frequent contact: _____

- If you had been asked that question a year ago would there have been anyone else you would also have mentioned then? Or is there anybody you would not have mentioned then, but confide in more now? YES / NO

  If yes:
  - Who were / are they and what happened? _____

Again, probe about main friend, if no confidant:

- How would you define being very close to someone? _____

  _____

- Do you have brothers and sisters? YES / NO

  If yes:
  - How many? _____

  - What ages are they? _____

  - What position are you in the family? ELDEST/ MIDDLE/ YOUNGEST

  - Have any of your brothers or sisters died? YES / NO

  If yes:
  - When was that/ How old were you? _____

- What was your father's occupation when you were a child? _____
  (*Supervisor / manager, self-employed, no. of employees?)*

  _____

- Are both your parents alive? YES / NO

  If yes:
  - What age are they? Mother _____
    Father _____

  If no:
  - What age were YOU when they died? S's age at mother's death _____
    S's age at father's death _____

- Have your parents ever been separated/ divorced? YES / NO

  If yes:
  - When was that / How old were you? _____

  - How long did they separate for? _____

- Were you ever separated from your mother before age 17? YES / NO

  If yes:
  - How old were you? _____

  - How long was it for? _____

  - What was the reason for separation? _____

- Were you ever separated from your father before age 17? YES / NO

  If yes:
  - How old were you? _____

  - How long was it for? _____

  - What was the reason for separation? _____

  _____

- Who brought you up for most of your childhood? *Ask about surrogate parents*

S'S Age

1st arrangement _____

2nd arrangement _____

3rd arrangement _____

4th arrangement _____

- How old were you when you came to leave home? _____
  Probe for different reasons for leaving

- What religion were you brought up in? _____

- What is your ethnic background? _____

Appendix 5

University of Southampton, School of Psychology, Ethics Committee approval, Research Governance approval and Professional Indemnity Insurance

Date: Thu, 6 Jul 2006 11:33:48 +0100
From: "Smith K.M." <K.M.Smith@soton.ac.uk>
To: sw504@soton.ac.uk
Subject: Ethics Application

Dear Sarah

Re: Close relationships and the experiences of emotion

The above titled application was approved by the School of Psychology Ethics Committee on 4 July 2006.

Should you require any further information, please do not hesitate in contacting me. Please quote reference CLIN/04/20.

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

University of Southampton

Legal Services

University of Southampton
Highfield
Southampton
SO17 1BJ United Kingdom

Tel +44 (0)23 8059 4684
Fax +44 (0)23 8059 5781
Email legalservices@soton.ac.uk

Tel: +44 (0)23 80598848/9

Ref: RSO 4602 REC (if available)

Ms Sarah Worden
School of Psychology
Building 44
University of Southampton
Southampton
SO17 1BJ

13 July 2006

Dear Ms Worden

Project Title: The relationship between adult attachmnt representations, emotion regulation and social anxiety

I am writing to confirm that the University of Southampton is prepared to act as sponsor for this study under the terms of the Department of Health Research Governance Framework for Health and Social Care (2001).

The University of Southampton fulfils the role of research sponsor in ensuring management, monitoring and reporting arrangements for research.

I understand that you will be acting as the Principal Investigator responsible for the daily management for this study, and that you will be providing regular reports on the progress of the study to the School on this basis.

I would like to take this opportunity to remind you of your responsibilities under the terms of the Research Governance Framework for researchers, principal investigators and research sponsors. These are included with this letter for your reference. In this regard if your project involves NHS patients or resources please send us a copy of your NHS REC and Trust approval letters when available.

Please do not hesitate to contact me should you require any additional information or support. May I also take this opportunity to wish you every success with your research.

Yours sincerely

Dr Martina Dorward
Research Governance Manager

cc. File
Ruth McFadyen
Supervisor/s: (if applicable)
Dr Lusia Stopa
School of Psychology
Building 44
University of Southampton
Southampton SO17 1BJ

University of Southampton | Finance Department

Memorandum

om:	Ruth McFadyen	**To:**	Sarah Worden
t:	22417	**Dept:**	Psychology
mail:	hrm@soton.ac.uk	**Date:**	12 July 2006

ference: HRM/GFT/4602

ofessional Indemnity Insurance

oject No: **4602**

Close Relationships and Experiences of Emotion

ank you for forwarding the completed questionnaire and attached papers.

ving taken note of the information provided, I can confirm that this project will be covered der the terms and conditions of the above policy, subject to written consent being obtained m the participating volunteers.

th McFadyen
surance Services Manager

Appendix 6

Participant information sheet and consent form

Study Number: 4602
Date: 8 May 2006
Version: 1

INFORMATION SHEET FOR ALL PARTICIPANTS

1. Study Title

Close relationships and experiences of emotion.

2. Invitation

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

3. What is the purpose of the study?

As you may be aware studies have suggested that previous and current relationships influence how people think (cognitions), behave (behaviours) and feel (emotions) about themselves, other people and the world in general. These cognitions, feelings and behaviours are important psychological processes that have been found to contribute to the development and maintenance of disorders such as depression and anxiety. The purpose of this study is to further investigate the contribution of relationships and emotions to psychological processes and difficulties.

4. Why have I been chosen?

All individuals registered with the University of Southampton, Department of Psychology research participation scheme have been asked to take part in this study. The study has been advertised on Psychobook and students are also being approached in lectures. Participants will receive 6 course credits for taking part in the research.

5. Do I have to take part?

Taking part in this research is entirely voluntary. It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and will be asked to sign a consent form. If you decide to take part you are free to withdraw at any time, without penalty and without giving a reason. You may also choose not to answer any questions that make you feel uncomfortable, without penalty and without giving a reason.

6. What will happen to me if I take part?

The study consists of taking part in an interview about your past/ current relationships and the completion of 6 brief questionnaires. All participants will be asked to complete all 6 questionnaires and the interview. The study should take approximately 1 hour and 30 minutes to complete. This is all that you will be required to do if you agree to take part in the study and you will receive six course credits for completing the questionnaires and attending the interview.

7. What do I have to do?

Arrange a convenient time with the researcher (by phoning or e-mail her) to come into the Psychology Building for the interview. After completing the interview the questionnaires will be given to you to complete. It is importance that you complete the questionnaires independently, without conferring or consulting with others.

8. **What are the possible disadvantages and risks of taking part?**

Some of the questions contained in the interview relate to past and current experiences. It is possible, therefore, that some participants might find some of the questions upsetting. Please remember that you may choose not to answer any questions that make you feel uncomfortable or upset without penalty.

9. **What are the possible benefits of taking part?**

You will earn 6 course credits for taking part in the research. The information obtained from this research will also make a contribution towards the understanding of relationships, emotions and psychological processes and difficulties.

10. **Will my taking part in this study be kept confidential?**

All information collected about you during the course of the research will be kept strictly confidential and will be stored in a locked room. In order to award course credits to participants it is necessary that the 'Demographic Details' questionnaire asks for participant details, such as name, email address, etc. All other questionnaires will be identifiable only by a participant number, and not by your name or by any other personal references, so that you cannot be recognised from it. The 'Demographic Details' questionnaires will also be stored separately from the other questionnaires and interview data.

11. **Who is organising and funding the research?**

The research forms part of the requirements for the University of Southampton, Doctoral Programme in Clinical Psychology (D.Clin.Psych), which is being undertaken by the researcher, Sarah Worden. Individuals undertaking this qualification are employed within the National Health Service (NHS), by Taunton and Somerset NHS Trust, as Trainee Clinical Psychologists.

12. **What will happen to the results of the research study?**

The results from the study will be reported in Sarah Worden's research dissertation, a copy of which will be available for viewing in October 2007 from the administrative office for the Doctoral Programme in Clinical Psychology (24 Bassett Crescent East). The results from the study may also be published in a suitable journal. Participants will not be identified in any report/publication.

13. **Who has reviewed the study?**

The study has been reviewed and approved by the University of Southampton, Department of Psychology, Research Ethics Committee.

14. **Contact for Further Information**

Should you require further information or have any question please contact the researcher Sarah Worden by email (sw504@soton.ac.uk) or by telephone (07706619654).

Relationships and experiences of emotion
Consent Form for Research Participants

Information sheet

I am Sarah Worden a Trainee Clinical Psychologist. I am requesting your participation in a study regarding how people's experiences in close relationships affects people's lives and their experiences of emotion. This will involve an interview and a number of questionnaires that will take approximately one and a half hours. You will be asked in the interview about your close relationships and then you will be asked to complete some questionnaires. Personal information will not be released to, or viewed by, anyone other than researchers involved in this project. Results of this study will not include your name or any other identifying characteristics.

Your participation is voluntary and you may withdraw your participation at any time. If you choose not to participate there will be no consequences to your grade or to your treatment as a student in the psychology department. If you have any questions please ask them now, or contact me Sarah Worden at 07706619654 or sw504@soton.ac.uk.

Signature Date

Name Sarah Worden

Statement of Consent

I _____ have read the above informed consent form.

[participants name]

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

Yes
No

I understand that these audiotapes will be destroyed after analysis

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 7

Participant debriefing sheet

Close relationships and experiences of emotion
Debriefing Statement

Thank you for your participation in this study – your responses will make a valuable contribution to the research base.

The aim of this research was to see how people's security in close relationships (attachment style) influences the way that they experience emotions and whether there is a link between people's security in relationships, the way they experience and manage emotions, and the amount of social anxiety they experience. It is expected that people who feel more secure in relationships, are likely to find emotions less threatening and are more able to regulate their emotions and therefore feel less socially anxious. Your data will help our understanding of whether emotion regulation is a mediator between adult attachment style and social anxiety. Once again the results of this study will not include your name or any other identifying characteristics. The research did not use deception.

Some of the questionnaires and interview used in this study include items of a personal and potentially upsetting nature. If you wish to talk to someone about issues raised by the study your family doctor (GP) will be able to help you. Alternatively you could contact one of the following organisations:

MIND	Telephone no.: 0845 766 0163 Email: contact@mind.org.uk Website:http://www.mind.org.uk/
NHS Direct	Telephone no.: 0845 46 47 Website: http://www.nhsdirect.nhs.uk/
Samaritans	Telephone no.: 08457 90 90 90 Email: jo@samaritans.org Website: http://www.samaritans.org/

You may have a copy of this summary if you wish.
If you have any further questions please contact me Sarah Worden at 07706619654 or sw504@soton.ac.uk

Thank you for your participation in this research.

Signature _____ Date _____

Name

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.