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THE ORIGINS OF SOCIAL PHOBIA

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Abstract

A greater understanding of the origins of social phobia is much needed. The research to date is limited by the relatively small number of studies that sample clinical populations of individuals with social phobia. There is however, research derived from related areas such as shyness, social anxiety, self-consciousness, peer-neglect and social withdrawal that contribute to a richer understanding of the etiology of social fears. Combining these areas of research, the present review addresses four main factors which may be important to the origins of social phobia: i) genetic factors, ii) family factors, iii) other environment factors and iv) development factors.

The Origins of Social Phobia

Social phobia has only begun to receive extensive attention in the literature in the last decade. Within that time the focus of research has been on understanding the nature and maintenance of the disorder (Clark & Wells, 1995; Rapee & Heimberg, 1997; Schlenker & Leary, 1982). However, it is important for research to also attempt an understanding of the *origins* of the disorder of social phobia. The pathways which lead an individual to such a diagnosis may be quite varied. The role of research then, is to discover the possible pathways that may be involved in the development of this condition. This paper will attempt to put together some of the recognised components which contribute to this disorder. However, it is first important to briefly examine the psychopathology of social phobia and discuss some definitional issues.

Social Phobia is defined in DSMIV as a 'marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others' (American Psychiatric Association, 1994, p. 416). DSM-IV also specifies a subtype of social phobia referred to as the generalized subtype. Generalized social phobia is characterised by fear in *most* social situations whereas non-generalized social phobia, sometimes referred to as specific social phobia, is characterised by a narrower range of fears. A further diagnosis in the DSM-IV that relates to social fears is avoidant personality disorder, which is characterised by a 'pervasive pattern of social inhibition, feelings of inadequacy and hypersensitivity to negative evaluation' and is evident before the individual reaches adulthood (American Psychiatric Association, 1994, p.416). Findings in the literature consistently suggest that generalized social phobia does not differ qualitatively from avoidant personality disorder (Turner, Beidel, & Townsley, 1992; Heimberg, Holt, Schneier, Spitzer & Liebowitz, 1992; Herbert, Hope, & Bellack, 1992; Holt, Heimberg, & Hope, 1992) but rather differs

in severity, with avoidant personality disorder being a more severe expression of the disorder. Turner et al., (1992) have noted that the common thread connecting these conditions is a fear of negative evaluation. Therefore, it may be helpful to consider these diagnoses on a continuum with non-generalized social phobia situated at one end and avoidant personality disorder at the more extreme end, rather than perceiving the two disorders as qualitatively distinct phenomena.

Research into the origins of social phobia is only in the beginning stages. There have been a relatively small number of studies specifically examining the etiology of the disorder. However there has been research about similar related constructs that will be important in a discussion on the origins of social phobia. Concepts such as shyness, social anxiety, self-consciousness, social isolation, social withdrawal, audience sensitivity and peer-neglect may share significant overlap with the symptomatology of social phobia (Turner, Beidel, & Townsley, 1990; Turner, Beidel, & Wolff, 1996). The main difference is that an individual may experience these phenomena without necessarily meeting full criteria for a diagnosis of social phobia. Due to the similarities between these constructs, their inclusion is important in our discussion and in the further understanding of the etiology of social phobia. However, when the research has been carried out specifically in one of these areas, the corresponding terminology will be used.

Age of Onset

In discussing the origins of social phobia, it is first important to determine a relevant time frame on which research should focus. Age of onset is therefore a very important variable. Interestingly, determination of the age of onset for social phobia is far from clear.

Retrospective reports indicate an *average* age of onset for social phobia between

early and late adolescence (Amies, Gelder, & Shaw, 1983; American Psychiatric Association, 1994; Liebowitz, Gorman, Fyer, & Klein, 1985; Mannuzza, Fyer, Liebowitz, & Klein, 1990; Turner, Beidel, Dancu, & Keys, 1986). Liebowitz et al., (1985) and Ohman (1986) suggest an additional onset period in early adulthood. However, in a large epidemiological study, almost half of the sample reported having suffered from the disorder *all* of their lives or since before the age of 10 years, suggesting that the age of onset may in fact occur earlier than adolescence (Schneier, Johnson, Hornig, Liebowitz, & Weissman, 1992). In anxiety disorder clinics for children the prevalence rate of social phobia is around 9-15% (Last, Strauss, & Francis, 1987), which would be supportive of the reports of adult social phobics who recall having always suffered from the disorder. It would appear then, that data from retrospective reports indicating an average age of onset in adolescence and early adulthood may be misleading and it would be more useful to allow for a much earlier age (Rapee, 1995).

An alternative way to approach the question of the age of onset of social phobia may be to examine the age at which children first develop social evaluative concerns or become self conscious, as it is these themes that appear to be central to the disorder of social phobia. Several researchers have studied this area but some confusion still remains as to when social evaluative concerns are first evident in children.

Buss (1980) referred to a type of shyness called self-conscious shyness which is evident once the child has developed a sense of themselves as a social object, that is, the ability to become acutely aware of themselves and aware that others may also view them. Self-conscious shyness is characterised by public self awareness as a result of being scrutinised, being uniquely different, a breaching of privacy or being in a formal situation. This shyness is also transient and supposedly a relatively universal experience. In order to determine when self conscious shyness was first evident in children, Buss and

his colleagues carried out a retrospective study to examine the ages when children first experience embarrassment (Buss, Iscoe, & Buss, 1979). Buss hypothesised that when a child is capable of experiencing embarrassment, the child must possess a social self, that is possess the ability to see himself or herself as a social object. The study found that around the ages of 4 or 5 there appeared to be a definitive increase in children's ability to experience embarrassment. This lead Buss to conclude that children develop self conscious shyness at around the age of 4-5 years. However, further studies have provided evidence that conflicts with the results of the Buss et al., (1979) study.

Lewis, Stanger, Sullivan and Barone (1991) were able to elicit embarrassment in an observational study in roughly half of the children when they were 2 years old and the majority of 3 year old children. The differences, however, may be a result of the method of obtaining data: maternal retrospective reports (Buss, Iscoe, & Buss, 1979) versus observational data (Lewis, Stanger, Sullivan, & Barone, 1991). It is also unclear whether the evidence of embarrassment at this age is indicative of a child's ability to feel self-conscious as there have been other studies that have found evidence suggesting that self-consciousness or concerns about negative evaluation do not occur until around eight years of age (Bennett & Gillingham, 1991; Bennett, 1989; Crozier & Burnham, 1990). For example, Bennet and Gillingham (Bennett & Gillingham, 1991) found that 8 year olds became embarrassed in front of a supportive audience whereas 5 year olds only became embarrassed in front of a derisive audience suggesting that the emotions of an 8 year old are being influenced by a self-awareness that is not evident in the 5 year olds.

In summary, it appears that negative feelings over criticism or disapproval can be seen as young as 2-3 years of age whereas the ability to experience self-consciousness or to anticipate negative evaluation from others may not occur until somewhat later (8 years). Understanding the development of self-consciousness and social evaluative

concerns in children is crucial to understanding the etiology of social phobia. However, it is beyond the scope of this article to discuss these issues in greater detail. Further study into the relationship between the development of self-consciousness and social phobia will be critical in achieving a much richer understanding of the origins of social phobia. The remainder of this paper will address four major factors which may be important to the origins of social phobia: i)genetic factors; ii)family factors; iii)other environment factors iv)development factors.

I) The Role of Genetic factors in the Origins of Social Phobia

There is considerable evidence to suggest that genetic factors play an important role in the development of social phobia. Several adoption, twin and family studies have examined genetic factors in social phobia and in shyness. Twin and adoption studies provide specific information about genetic influences as they tease out contributions made by the environment. Family studies however, measure both genetic and environmental factors, and therefore, do not provide a pure genetic contribution and thus will be considered separately. The results from temperament studies are also relevant here, as they follow on from the suggestions supported by the twin and adoption research.

Twin and adoption studies

Results from twin studies on anxiety disorders have consistently failed to find evidence for the specific heritability of anxiety disorders (Andrews, Stewart, Allen, & Henderson, 1990; Andrews, Stewart, Morris-Yates, Holt, & Henderson, 1990; Jardine, Martin, & Henderson, 1984; Torgersen, 1983; Tyrer, Alexander, Remington, & Riley, 1987). For example, Andrews et al., (1990) carried out a large twin study using structured interviews and experienced interviewers to diagnose the occurrence of anxiety and

depression. The sample included 33 pairs of adult twins with social phobia. There was no evidence for the specific heritability of individual anxiety disorders, but rather the data supported a conclusion that what is inherited is a propensity towards general neurosis. One twin study that provided some evidence for a small proportion of the variance in social phobia being accounted for by specific genetic factors. In a sample of 2,163 female twin pairs, Kendler et al., (1992) found a concordance rate for social phobia that was higher for monozygotic twins (24%) than for dizygotic twins (15%). The study suggested that 21% of the variance in liability to social phobia was a result of genetic factors specific to the disorder and a further 10% was due to genetic factors shared by all phobias. However, Kendler et al., (1992) remark that the results of the study could also fit a model in support of a pathway common to the anxiety disorders. Thus, there may be some evidence for the involvement of specific genetic factors in the etiology of social phobia and other phobias, but the bulk of the evidence at this stage seems to be more consistent with a suggestion that what is inherited is a general predisposition towards anxiousness.

Although there have been few genetic studies examining the heritability of social phobia specifically, there have been numerous studies that have examined genetic factors involved in shyness and socially related fears (Buss & Plomin, 1975; Buss, Plomin, & Willerman, 1973; Canter, 1973; Cohen, Dibble, & Grawe, 1977; Daniels & Plomin, 1985; Horn, Plomin, & Rosenman, 1976; O'Connor, Foch, Sherry, & Plomin, 1980; Osborne, 1980; Plomin & Rowe, 1977; Plomin & Rowe, 1979; Rose & Ditto, 1983; Scarr, 1969; Torgersen, 1979). The only adoption study to have been carried out on shyness examined correlations between infant shyness and shyness measured both in biological and adopted mothers (Daniels & Plomin, 1985). The study found that infant shyness was correlated with shyness in biological mothers at 24 months of age but not

significantly correlated with shyness in adopted mothers at either 12 or 24 months of age, suggesting a genetic influence on infant shyness. Similarly, two twin studies have demonstrated higher concordance for monozygotic than dizygotic twins on measures of social fears (Torgersen, 1979; Rose & Ditto, 1983).

Thus, based on both twin and adoption studies the genetic contribution towards social phobia and other related constructs is evident. The bulk of research tends to suggest that what is transmitted is a genetic predisposition towards anxiousness rather than the transmission of specific anxiety disorders. So how does this predisposition manifest itself? In answering this question it would be important to examine behaviour in young children, as patterns of behaviour relevant to a general anxiousness could be identified at this age before specific psychopathology develops. Evidence for this can be found in the vast amount of research on childhood temperament.

Studies of Temperament

The term 'temperament' has generally been used to refer to the 'intrinsic behavioral characteristics of a child that can be modified through interaction with the environment'(Sanson, Prior, Garino, Oberklaid, & Sewell, 1987 pg97). Several researchers therefore suggest that temperament may have a biological and genetic basis (Prior, Sanson, Oberklaid, & Northam, 1987; Derryberry & Rothbart, 1985. See Prior, 1992). Theorists have proposed a number of consistent temperamental dimensions. For example, the Revised Infant Temperament Questionnaire (Carey & McDevitt, 1978) assesses nine temperamental factors: approach, activity/reactivity, food fussiness, rhythmicity, cooperation/manageability, placidity; threshold, irritability and persistence. Buss & Plomin (1984) also refer to three factors of temperament: sociability, activity, emotionality. As noted by Sanson, Pedlow, Cann, Prior & Oberklaid (1996), one

particular factor that is common to most temperament models is a dimension which refers to the typical behavior of the child in strange situations and with strange people. This factor has variously been referred to as fearfulness, withdrawal, approach, shyness or behavioral inhibition.

Behavioral Inhibition (BI) is an area of temperament research that has received a great deal of attention in recent years. Kagan and his colleagues have defined behavioral inhibition in terms of reactions of withdrawal, wariness, avoidance, and shyness in novel situations (Garcia Coll, Kagan, & Reznick, 1984; Reznick, Kagan, Snidman, Gersten, Baak, & Rosenberg, 1986). More recent studies have linked BI with the anxiety disorders and in particular a link with social phobia and panic disorder (for a thorough review of the link between BI and the anxiety disorders see Turner, Beidel, & Wolff, 1996).

There have been several studies that suggest a link between social evaluative concerns and behavioral inhibition in young children, however at this stage the evidence is not conclusive. For example, Rosenbaum et al., (1991) found increased rates of social phobia in the parents of behaviorally inhibited children in comparison to the parents of uninhibited and normal children (inhibited children 18%; uninhibited children 0%; control children 3%). This study also found that the parents of behaviorally inhibited children were more likely than the parents of uninhibited and normal children to have a history of childhood avoidant disorder (15%; 0%; 0%) and overanxious disorder (38%;11%; 9%). A similar result was also evident in another study that found increased rates of social phobia in the parents of behaviorally inhibited children in comparison to the parents of children without behavioral inhibtion and without anxiety (Rosenbaum, Biederman, Bolduc, Hirshfeld, Faraone, & Kagan, 1992). These results suggest that parents of behaviorally inhibited children are more likely to have an anxiety diagnosis that is related to social fear.

Rates of anxiety disorders have also been examined in behaviorally inhibited children and the findings suggest an increased risk for anxiety disorders that have a social basis. For example, Biederman et al., (1990) examined children whose parents were receiving treatment for panic disorder with or without agoraphobia and with or without major depressive disorder and found that behaviorally inhibited children had significantly higher rates of overanxious disorder (inhibited 27.8%, uninhibited 0%, control 0%). A trend towards higher rates of avoidant disorder (16.7%; 0%; 5%), separation anxiety disorder (16.7%; 8.3%; 10%) and phobic disorders (11.1%; 0%; 0%) was found in behaviorally inhibited children in comparison to uninhibited children and normal controls. Biederman et al., (1990) also examined the Kagan longitudinal sample (Kagan, Reznick & Snidman, 1987; Kagan, Reznick, Snidman, 1988; Kagan, Reznick, Snidman, Gibbons & Johnson, 1988; Reznick, Kagan, Snidman, Gersten, Baak, Rosenberg 1986) and found that phobic disorders were significantly more common in inhibited children than in uninhibited children (31% vs 5.3%). The fears reported from those children diagnosed with phobic disorders included a fear of standing up and speaking in front of the class (55.5%) fear of animals or bugs (55.5%) fear of strangers (44.4%) fear of the dark (44.4%) fear of being called on in class (33.3%) fear of crowds (33.3%) fear of elevators (22.2%) fear of physicians (22.2%). Some of these fears are clearly socially related.

The findings from a three year follow up of behaviorally inhibited and uninhibited children suggest that an inhibited child is significantly more likely than an uninhibited child to have avoidant disorder, separation anxiety disorder and agoraphobia at baseline and also more likely to develop avoidant disorder and separation anxiety disorder over the three year period (Biederman, Rosenbaum, Bolduc-Murphy, Faraone, & Chaloff, 1993). Children with stable behavioral inhibtion over the three year period

were more likely than unstable behaviorally inhibited and uninhibited children to develop avoidant disorder. This result suggests that stability of behavioral inhibition may be an important factor in the development of anxiety.

Thus, it appears from the research that behavioral inhibition marks an increased risk for anxiety disorders including those disorders related to social fears, for both children and their parents. Clearly, the presence of an anxious temperament (such as high behavioural inhibition) is not a specific risk factor for social fears, but marks as increased risk for anxiety disorders in general. In following sections we will examine possible ways in which this broad risk for anxiety may become chaneled into a specific disorder such as social phobia.

Familial studies

A handful of studies have examined the familial contribution to social phobia (Fyer, Mannuzza, Chapman, Liebowitz, & Klein, 1993; Fyer, Mannuzza, Chapman, Martin, & Klein, 1995; Last, Hersen, Kazdin, Orvaschel, & Perrin, 1991; Reich & Yates, 1988). These studies have consistently found significantly higher rates of social phobia in the relatives of social phobic probands compared to non-clinical controls. (Fyer, Mannuzza, Chapman, Liebowitz, & Klein, 1993; Last, Hersen, Kazdin, Orvaschel, & Perrin, 1991; Reich & Yates, 1988). Importantly, some studies have indicated a specific inheritance for social phobia, suggesting that social phobia may specifically run in families (Fyer, Mannuzza, Chapman, Martin, & Klein, 1995; Reich & Yates, 1988). For example, Fyer, et al., (1995) found an increased risk for social phobia rather than an increased risk for simple phobia or agoraphobia in the relatives of social phobic probands suggesting a familial loading for social phobia that is etiologically discrete. Reich and Yates (1988) also found an increased risk for social phobia in the relatives of social

phobic probands and significantly less generalized anxiety disorder and panic disorder in comparison to the relatives of panic disordered probands. In contrast, at least one study has failed to find results in support of the previous findings. Last et al., (1991) found that the relatives of children with social phobia were no more likely to have social phobia than the relatives of children without social phobia. This study also found that there were no differences in the rates of social phobia in the relatives of anxious children in comparison to attention-deficit-hyperactivity-disordered children. However, this study used a very small sample of children with social phobia (n=9). This may account for the reason why a specific relationship was not found between socially phobic children and their relatives.

Whereas the twin studies have provided evidence for a general genetic predisposition towards anxiousness, the research from family studies provides evidence that suggests a specific familial transmission for social phobia. Given that the twin studies measure primarily genetic factors while the family studies measure both genetic and environmental factors, it could be hypothesised that it is the family environment rather than genetics that is the key to this specific transmission.

II) The Role of the Family in the Origins of Social Phobia

In considering environmental factors that may be involved in the etiology of anxiety, in particular social phobia, the family environment is likely to be important. As mentioned earlier, it is possible that the specific familial transmission of social phobia, evident in the results of the family studies reviewed above, is a product of the family environment rather than specific genetic factors. The three major avenues that are likely to be important in the family's contribution to the development of social phobia are the childrearing styles of the parents of socially phobic individuals, parental modeling of

social concerns and restricted exposure to social situations. A difficulty with this research however, is that many of the studies have tended to use problematic methods of obtaining data (Rapee, 1997). Much of the research has been carried out retrospectively and is therefore open to memory bias. Retrospective report may not be an accurate reflection of the family's actual contribution to the development of social phobia.

Childrearing factors

Retrospective studies

Studies have shown that socially phobic populations tend to perceive their parents as having been over-protective, lacking in warmth, rejecting, less caring and more likely to use shame tactics in comparison to normal controls (Arrindell, Emmelkamp, Monsma, & Brilman, 1983; Arrindell, Kwee, Methorst, van der Ende, Pol, & Moritz, 1989; Bruch & Heimberg, 1994; Rapee & Melville, 1997; Parker, 1979). Similar findings have also surfaced in the literature examining the perceived parenting styles of shy and socially anxious individuals (Eastburg & Johnson, 1990; Klonsky, Dutton, & Liebel, 1990; Siegelman, 1965). For example Eastburg and Johnson (1990), found that shy female college students were more likely to rate their mothers as having been less accepting and more controlling. Klonsky et al., (1990) found that compared to females with low social anxiety, socially anxious female college students reported their fathers as more rejecting, neglecting and more likely to use authority discipline and that their mothers were more neglecting and over-protective.

Although these studies suggest that social phobic, shy or socially anxious individuals perceive their parents differently to non clinical controls, they do not provide information as to whether these perceptions are specific to socially related fears or

whether they occur in other anxiety conditions. Unfortunately, there have been few studies that have made such comparisons, making it difficult to come to any conclusions. Parker (1979), compared socially phobic and agoraphobic patients' reports of their parents' over-protectiveness and care. He found that social phobics rated their parents as less caring and more over-protective, whereas agoraphobics only rated their mothers as having been less caring than normal controls. In another study, a similar result was found in that agoraphobics rated their parents as lacking in emotional warmth and their mothers as being rejecting while social phobics rated both parents as rejecting, lacking in emotional warmth and as over-protective (Arrindell et al., 1989). A further study compared three phobic groups: agoraphobic; social phobic; simple (height) phobics (Arrindell et al., 1983). Agoraphobics reported greater maternal rejection and both paternal and maternal lack of emotional warmth in comparison to non-clinical controls. Both social phobics and simple (height) phobics reported greater parental lack of emotional warmth, rejection and over-protection in comparison to a non-clinical control group. Similarly, Rapee & Melville (1997) found slightly greater reports of maternal control in social phobics, compared to participants with panic disorder.

The research suggests that socially phobic groups differ from agoraphobic and panic disorder groups in their reports of perceived parental over-protection. However, it would seem that parental over-protection is a factor general to anxiety, with perhaps more consistency in the disorder of social phobia.

Child studies

The studies reviewed so far however have been retrospective in nature and have also been testing *perceived* parenting practices rather than *actual* parenting practices. Studies that assess children's perceptions of parenting styles and observational studies of

parent-child interactions will contribute to obtaining a clearer and more precise picture of parenting styles. However, there have been no published studies of this type which have used a clinical sample of socially phobic children. Some observational studies and child studies have used populations that are relevant to social phobia such as socially anxious, socially withdrawn, audience sensitive, socially unsuccessful, and peer-neglected children.

In one study, Attili (1989) observed interactions between preschool children and their parents finding that children who were being over-controlled by their parents without being given a reason and children who were ignored by their parents and treated as though they did not exist tended to be socially unsuccessful at pre-school. The study also found that being isolated and uneasy at school was also associated with parental over-protection. This result provides further evidence that over-protection may be important in the development of social phobia as isolation and uneasiness in social interactions are typical factors associated with social phobia.

In a longitudinal study, Kagan and Moss (1962) found that socially withdrawn behavior in female adults was significantly and positively related to the mother's report of protection when the child was between 0 and 3 years of age, suggesting that the more protective the mother is of her daughter the more socially withdrawn she will be later in life. Another study found that mothers of socially withdrawn preschool aged children were more likely to believe that social skills should be taught and managed in a directive and coercive way (Rubin & Mills, 1990). Other observation studies have found similar results when examining social desirability (Allaman, Joyce, & Crandall, 1972), audience sensitivity (Paivio, 1964) and fear of failure (Teevan & McGhee, 1972) in children.

In an effort to address some of the limitations of previous research on childrearing and the anxiety disorders, Hudson & Rapee (1997) have directly observed

parental involvement in a sample of clinically anxious children. In this study, children were asked to completecomplex puzzle tasks while their mothers were given the answers to the task and told to help only if they felt the child really needed it. The study found that mothers of children with anxiety disorders gave more help and were more intrusive during the tasks than mothers of non-clinical children. Although not analysing parental involvement specifically for socially phobic children, the study provides support for the previous research linking maternal over-involvement/over-protection and the anxiety

Taken together, the studies reported here show that there seems to be a trend indicating that certain parenting styles of control/over-protection or neglect may be related to socially anxious behaviours. Similarly, retrospective studies have linked these perceived parenting styles to social phobia. This research has highlighted possible differences between the perception of parenting in social phobic, panic and agoraphobic groups, with the differentiating factor likely to be parental over-protection. Further research is necessary however, to determine whether these parenting practises are specific to social phobia in comparison to other psychopathology. As mentioned earlier, it is likely that parental over-protection is involved in anxiety disorders in general, with a stronger association with social phobia.

A possible mechanism by which parental over-protection becomes associated with anxiety is that it conveys a message to the child that "the world is harmful" and the child needs to be protected as they are not capable of defending themselves. This instils in the child a perceived sense of an inability to cope. These factors of threat and perceived inability to cope are fundamental to the experience of anxiety.

It is difficult to conclude as to the causal nature of the relationship between anxiety and parenting practices. It may be that a child has a difficult temperament and the parent then responds in a rejecting or over-protecting way. Based on an amalgam of the

data, the most likely scenario is a cyclical relationship between temperamental factors and childrearing (Rapee, 1997). That is, children born with an anxious temperament may influence the way in which parents respond to them. This is likely to occur in a context of a parent who may be anxious and therefore, more likely to overprotect. The parental response may then further contribute to the moulding of anxious beliefs in the child.

Modeling and Restricted Exposure

Restricted exposure to social situations and modeling of social evaluative concerns may also play important roles in the development of social phobia (Arbel & Stravinsky, 1991; Bruch, Heimberg, Berger, & Collins, 1989; Bruch & Heimberg, 1994; Buss, 1980; Buss, 1986; Daniels & Plomin, 1985; Paivio, 1964; Rapee & Melville, 1997). The degree to which a family socialises with other people may be important, in that, if the child has limited exposure to social situations, then the child rarely has the opportunity to learn that social situations are not harmful. Not only does restricted exposure to social situations teach the child that these situations are best avoided, it limits the child's opportunity to develop relationships with same-aged-peers and to develop appropriate social skills. In addition, parents who are themselves socially anxious, may teach their child through modeling of social concerns that social situations are harmful and best avoided. Parents who stress the importance of other people's opinions may be teaching the child to fear the opinions of others and instil in the child a pre-occupation with social concerns. Buss (1986) refers to this as "excessive socialisation training in the importance of the social self" (pg 45).

There is some support for the suggestion that modeling and restricted exposure are involved in the development of social phobia. Some studies have found that people with social phobia retrospectively reported their parents as overemphasising the opinions

of others, de-emphasising family sociability and wanting to isolate them, in comparison to reports of agoraphobic groups and non-clinical controls (Bruch, Heimberg, Berger, & Collins, 1989; Bruch & Heimberg, 1994). The research also suggests that there may be differences between the reports of non-generalized and generalized social phobics, as one study found that generalized social phobics perceive their parents as *more* likely to isolate them from others and as placing *less* emphasis on family sociability in comparison to non-generalized social phobics (Bruch & Heimberg, 1994). Of course it is possible that this is a difference of degree rather than a qualitative difference (Rapee, 1995). The research suggests that socially phobic individuals- in particular generalized social phobics- perceive their mothers as more avoidant of situations that are likely to cause social anxiety than do non-clinical controls (Bruch, Heimberg, Berger, & Collins, 1989; Bruch & Heimberg, 1994). Arbel and Stravynski (1991) also found that in comparison to non-clinical controls, people with avoidant personality disorder remembered their parents being less sociable, less comfortable in social situations and less likely to encourage them to socialise. In a study examining the reports of anxious adults as well as the reports of their mothers, Rapee and Melville (1997) found that social phobics, in agreement with their mothers, reported significantly lower parental socialisation in comparison to a nonclinical control group. Panic disordered subjects also reported significantly lower parental socialisation than nonclincial controls, but this result was not found in the mother's reports.

Audience sensitivity of children has also been linked to parental sociability: For girls, the greater sociability reported by the mother, the lower the daughter's audience sensitivity, and for boys, the sociability of both the mother and the father were significantly and negatively correlated with audience sensitivity (Paivio, 1964). In the adoption study by Daniels and Plomin (1985), infant shyness was found to be

significantly correlated with low sociability in adopted mothers when the infants were 12 and 24 months. In this study, infant shyness was also negatively correlated with the family's personal growth, that is, involvement in cultural events, learning new and different things, having friends to visit, and so on.

A study highlighting the role of family enhancement in childhood avoidant behaviour was conducted by Barrett, Rapee, Dadds & Ryan (1996). In this study, children were given ambiguous situations and asked to respond as to what they would do in the situation. For example, "You see a group of students from another class playing a great game. As you walk over and want to join in, you notice that they are laughing.....What would you do?" The children first responded to this stimulus and then provided another response following a brief family discussion. Following the family discussion, the percentage of anxious children providing avoidant solutions considerably increased whereas nonclinical and oppositional children decreased their avoidant responses following discussion with their parents.

The role of parental modelling and restricted exposure to social situations in the development of social phobia is worthy of further research. It is possible, however, that the connection between social fears in children and parental modeling and restricted exposure are due to shared genetics. Thus, it is crucial for replication of these results to be carried out using adopted offspring.

III) The Role of Other Environment Factors in the Origins of Social Phobia

There are several other environmental experiences that may further shape cognitions and lead the individual to fear the negative evaluation of others. These experiences may include several common factors such as traumatic social experiences, childhood illness, social isolation, being bullied or teased by peers, or being the first born

or only child. These factors will be discussed in more detail.

Traumatic social experiences

The results of two studies have suggested that the origins of social phobia may lie in an initial conditioning experience that is socially traumatic. Öst and Hugdahl (Ost & Hugdahl, 1981) found that 58% of their social phobic sample reported that the onset of their phobia was the direct result of a conditioning experience. Stemberger, Turner, Beidel and Calhoun (1995), also carried out a study finding that 56% of individuals with specific social phobia and 40% of generalized social phobics recalled a traumatic event that marked the onset or a marked increase in symptoms. The traumatic experiences included being laughed at or making a mistake in situations such as being called on to talk in class, being on a first date, speaking in public or being at a party. Only the specific socially phobic group differed significantly from the normal control group. Of course findings such as these beg the question of why some individuals remember these events as "traumatic" while others might recall them as benign.

Social Isolation/ Peer neglect

A child's traumatic experiences may include being teased, bullied, laughed at, rejected, neglected or isolated from other children. There has been some research, including longitudinal research, that addresses the relationship between these experiences and various constructs related to social anxiety or sociability (Gilmartin, 1987; Hymel, Rubin, Rowden, & LeMare, 1990; Ishiyama, 1984; Rapee & Melville, 1997; Rubin, Hymel, & Mills, 1989; Vernberg, Abwender, Ewell, & Beery, 1992). The results of a study carried out by Rapee and Melville (1997) revealed that socially phobic and panic disordered adults and their mothers retrospectively reported having fewer friends

between the ages of 8 and 12 than nonclinical controls, with the differences being more consistent in the socially phobic group.

The Waterloo longitudinal project studied kindergarten children through to grade 2 and then to grade 5 and found that peer isolation in grade 2 was significantly correlated with self-rated social incompetence, teacher ratings of shyness and unpopularity in grade 5 (Hymel, Rubin, Rowden, & LeMare, 1990). The study also found that passive solitary play in kindergarten and grade 2 was associated with perceived social incompetence in grade 5 and a negative perception of general self worth (Rubin, Hymel, & Mills, 1989).

In another study Gilmartin (1987) asked "love shy" older (35-50 years) and younger (19-24 years) men to retrospectively report on their childhood experiences. The study found that compared to men who were not love shy, love shy men, reported greater percentages of frequency of bullying when they were children (Older 99%; Younger 81%; Non-shy 0%), bullying and harassment in year 10, 11, and 12 (Older 62%; Younger 48%; Non-shy; 0%), being picked last for sport teams at school (Older 91%; Younger 70%; Non-shy; 3%) and reporting never having any friends throughout their life (Older 75%; Younger 53%; Non-shy 0%).This study again highlighted the importance of peer rejection, bullying and social isolation in the development of shyness and perceived social competence.

It is important to note that the relationships highlighted above may not necessarily be causal but may simply reflect temperament. That is, a child with an anxious temperament may behave in a particular way that sets them apart from other children and thus, in being different, are more susceptible to teasing, bullying and being rejected by other children. Nevertheless social isolation may affect a child’s perception of himself or herself and also may affect subsequent social interactions. Isolation from peers may also inhibit the development of the child’s social skills. A deficit in social skills or a

perceived deficit in social skills may further contribute to the child's isolation. Being bullied, neglected and having few or no friends to play with at school may further contribute to the child's perception of himself or herself as incompetent.

One interesting study examined peer-relationships and social anxiety in early adolescents who had recently changed schools (Vernberg, Abwender, Ewell, & Beery, 1992). This study found that social anxiety was influenced by the development of new friendships and the degree of intimacy in these friendships. Social anxiety in turn, appeared to vary according to the degree of companionship, intimacy and the number of peer-rejection experiences. These results suggest the possibility of 'reciprocal causal relationships' existing between social anxiety companionship, intimacy and peer rejection experiences (Vernberg et al., 1992). The study generates further interest in enhancing the understanding of the possible connection between these variables.

Illness

It has been suggested in the literature that childhood illness may be a contributing factor towards social anxiety and shyness. At least one study has found greater reports of childhood illness for shy individuals in comparison with individuals who report never being shy (Briggs and Cheadle, 1986 cited in Bruch, 1989). Determining the direction of this relationship however, is difficult. It is possible that certain illness may simply reflect the child's temperament. It is also possible that being ill sets a child apart from other children and may make him/her feel different or perhaps put under more pressure at school to catch up on the missed work. The child may feel under scrutiny and thus, social anxiety may result (Buss, 1980).

It is also possible that the illnesses reported by the child are symptoms of anxiety rather than causal factors. Anxious children will often complain of headaches or stomach

aches as a result of 'worrying' or in an effort to avoid feared situations. Further research is needed to examine the link between illness and anxiety- in particular, social anxiety.

Birth Order

There have been several claims in the literature suggesting that social fears and shyness may be related to the position a child holds in his or her family. For example, Greenberg and Stravynski (1985) found that 63% of male patients and 36% of female patients, whose main complaints were social anxiety and avoidance, were only or first born children. Greenberg and Stravynski suggest that it may be that an older sibling serves the function of a social role model and first and only born children are without such a model.

Some studies have also shown increased rates of shyness in first born and only born children rather than later born children (Klonsky et al., 1990; MacFarlane, Allen, & Honzik, 1962; Zimbardo, 1996). Zimbardo (1996) suggests that first born children are more likely to be shy because of the pressure often placed on the first born child to succeed. Zimbardo also proposes that later born children, as a matter of social survival, develop more effective social skills than first borns as they do not have the power advantage that first borns have. Thus, some research suggests that being a first or only born child may be a contributing factor to the development of social anxiety. However, Rapee and Melville (1997) failed to find significant differences in offspring family position between social phobia, panic disorder and nonclinical control groups. Further research in this area is essential before conclusions about the role of birth order are drawn.

IV) The Role of Developmental Factors in the Origins of Social Phobia

There are also some shared developmental experiences that may be involved in the etiology of social phobia. In the discussion on the age of onset for social phobia, earlier in this paper, some developmental issues were addressed. It seems, based on a summary of the research, that from a very early age (2-3 years) children possess the ability to experience negative feelings as a result of being criticised or disapproved of; however, the ability to feel self-conscious may not occur until around 8 years of age. In addition to the issues already addressed, there may be other developmental periods of importance to the etiology of social phobia, such as the onset of adolescence, late adolescence and also early adulthood.

The developmental period of adolescence marks the beginning of many physical, cognitive and social changes. Bruch (1989) noted that with adolescence comes the "onset of puberty; entering a new school situation and the onset of formal operations thinking in which the child is able to distinguish between the perspectives of other's and one's self-view"(p.43). Research suggests that early adolescence is a period of increased self-consciousness where the individual becomes more aware of the evaluation of others (Bruch, Giordano, & Pearl, 1986; Elkind & Bowen, 1979). Adolescence begins at the age, that according to some studies, corresponds with the age of onset of social phobia. It may be that the increase in self-consciousness is a trigger for the onset of increased social fears. In addition to the increased self-consciousness, there are changes in the adolescent's social environmen: in particular the school environment. New friendships may need to be formed and the novelty of this new situation may trigger fears of not being liked by the other children and fears of being laughed at.

Following adolescence, when the young adult enters the work place or continues further education, a novel social situation again will arise. The individual has to establish him/herself in another social environment so again it is likely that this time may be

important in the development of social phobia. Early adulthood also sparks a period of increased independence where reliance on the family is reduced and the young adult learns to cope on their own. There may also be more pressure on the young adult to perform as they obtain more responsibility. Social anxiety may further increase if the adult's cognitions consist of negative beliefs such as thinking they are unable to provide the desired or required impression .

Ethological theorists have suggested that social phobia has its onset in adolescence and early adulthood as it is this time when the individual finds his/her place within the social system (Ohman, 1986; Trower & Gilbert, 1989). It has been suggested that social anxiety occurs as a result of social conflict and the social anxiety acts as a gesture of submissiveness to ward off attack from more dominant members of the same species (Ohman, 1986). Therefore, it is suggested that social anxiety has a role in maintaining social order and creating more cohesion within the social system, as submission brings compliance. Adolescence and early adulthood may be a time when social anxiety is more likely to emerge because social conflicts are more likely to arise as the individual struggles to determine his or her role in the dominance hierarchies.

Summary and Conclusions

The majority of research into genetic factors in anxiety points to an inherited genetic predisposition that is not specific to the disorder of social phobia; rather, it is a predisposition to general anxiousness. In support of this hypothesis, research into temperament has indicated a temperamental construct (behavioral inhibition) that has been linked to an increased risk for anxiety disorders later in life. Studies that measure the prevalence of psychopathology in the relatives of individuals with social phobia, suggest that social phobia may in fact run in families in a relatively specific fashion.

Thus, if there is not a specific genetic predisposition responsible for this finding, it would suggest that the family environment is instrumental in this transmission.

Based on the research reviewed in this article, it appears that the family may be significantly involved in the moulding of a child's attitudes towards social threat. Research has indicated two aspects that may be important: (a)childrearing styles of over-protection/control, rejection, lack of warmth; (b)family characteristics of restricted exposure and parental modeling of socially related concerns. However at this stage, the research into both of these factors provides evidence that is not overwhelming. Most of the studies have used retrospective data with few studies using observational methods to identify parenting practises specifically in *socially phobic* individuals. The child studies that have been carried out measuring constructs relevant to social phobia seem to support the results of the retrospective research. However, further research that examines socially phobic individuals and their parents in comparison to other anxiety disorders and other psychopathology is necessary to determine if these family factors are specific to social phobia. It is also important for adoption studies to be conducted in order to rule out the possibility that these findings are due to shared genetics. It could be predicted that the family factors likely to show up in future research as being specifically related to social phobia would be the modeling of social concerns (including excessive socialisation) and restricted exposure to social situations. In addition, although perceived parenting styles related to over-protection are evident in socially phobic populations in comparison to agoraphobic and panic populations, it is unlikely that over-protection is restricted to the parenting of individuals with social phobia but may also be involved in other anxiety disorders or psychopathology.

Aside from the family environment, there also appear to be other environment factors that may be involved in the etiology of social phobia such as peer-rejection, social

isolation, childhood illness and birth order. However, as current research is limited, the role of these factors is still uncertain. Peer-rejection and social isolation may be consequences of the individual's temperament; however, it could be that this relationship is cyclical, as experiences of peer-rejection, in turn, affect subsequent social interactions and social anxiety. This may also be true for the role of childhood illness, as it may reflect temperamental variables as well as further contributing to an increase in the child's feelings of being 'different' or feeling under scrutiny. An additional factor that may be important in the development of social phobia is the position the child holds in his or her family. Some research suggests that a higher proportion of individuals with social anxiety are first or only born children, although other studies have failed to find such an effect. Further research into these specific environmental factors is much needed to more clearly define their role in the development of social phobia.

Developmental factors have also been discussed as playing a role in the origin of social phobia. There are some developmental periods that appear to create opportune environments for nurturing the maturation of social concerns and fear of negative evaluation. The research suggests that at around 8 years of age an individual develops the ability to anticipate negative evaluation. Also, the onset of adolescence accompanies the onset of increased self-consciousness. Adolescence and early adulthood invite changes in the individual's social situation in which the individual needs to regain his or her place, opening up the possibility of increased social concerns and increased fear of not being liked. Further understanding the role that these developmental periods play in the etiology of social phobia will contribute to a much richer understanding of the disorder.

A major contribution to this discussion on understanding the origins of social phobia, has come from research into related areas such as shyness, social anxiety, social withdrawal, social isolation, audience sensitivity and peer neglect. It is important for

future research to make use of populations of socially phobic individuals and even more important that comparisons are carried out between groups of socially phobic individuals and individuals with other anxiety disorders to determine whether the features highlighted in this paper are specific to social phobia. A greater understanding of the origins of social phobia is much needed: In understanding the factors that contribute to the development of this disorder, further steps towards prevention will be possible.

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