



Introduction to special issue on social phobia in children

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Social phobia (or social anxiety disorder) is characterised by 'a marked and persistent fear of one or more social or performance situations' (American Psychiatric Association, 1994). It is one of the most common forms of psychopathology, with a prevalence rate of around 7% in both children and adults (Furmark, 2002; Stein & Stein, 2008). Social phobia typically begins early in life, with approximately half of socially anxious adults reporting onset before the age of 11 (Stein & Stein, 2008). The significant impact of social phobia on the lives of children is increasingly recognised. For example, socially anxious children are less likely to have close friendships, and more likely to drop out of school early and are less liked by their peers than non-anxious children (La Greca & Lopez, 1998; Stein & Kean, 2000; Verduin & Kendall, 2008). Furthermore, if left untreated, social phobia during childhood increases risk for substance abuse and other mental health problems later in life (Crum & Pratt, 2001; Stein et al., 2001). Despite the prevalence and negative consequences of social phobia in children, understanding of the aetiology of this disorder remains limited. In this special issue, a series of papers are presented that take an experimental approach to further understanding of the pathogenesis of social phobia in children. As the ultimate goal of this experimental research is to contribute to the improvement of treatments for social phobia, the final paper presents a review of treatment research.

The ten papers included in this special issue cover a broad range of topics related to social phobia in children. The first three papers use experimental approaches to examine biases in the processing of emotional stimuli in socially anxious children. **Broeren, Muris, Bouwmeester, Field and Voerman (2011)** examine attentional bias and emotion recognition bias using a dot-probe task and a morph task, respectively. Whilst the dot-probe task has been used extensively to examine attentional bias, this is the first study to use a morph task with socially anxious children. The results demonstrate developmental differences in task performance and highlight the challenges of conducting research of this nature with younger children. The authors discuss the inconsistency of findings across tasks and highlight the need for research that examines the reliability and validity of information processing bias measures in children.

Building on their earlier research, **Waters, Mogg, Bradley and Pine (2011)** examine the relationship between attentional bias for emotional faces and social phobia. The findings show that, within a group of children with a clinical diagnosis of social phobia, symptom severity affects the direction of attentional bias for angry faces; the high anxious participants exhibited *vigilance* for angry faces whereas participants with lower levels of anxiety exhibited *avoidance* of threat. These findings suggest that social phobia is associated with biased attentional processing but that the direction of this effect depends upon symptom severity. This is an important finding as it suggests that findings with regards to attentional processing bias will be misleading when the severity of anxiety is not considered.

The third paper to examine the processing of emotional stimuli takes a different approach by assessing attention to emotional faces in the offspring of mothers with social phobia (**Creswell et al., 2011**). The results suggest that infants of mothers with social phobia avoid high-intensity fearful faces and are

vigilant for high intensity angry faces. In contrast, infants of mothers with Generalised Anxiety Disorder only show vigilance for high intensity angry faces. These findings may indicate that social anxiety is specifically associated with avoidance of fearful expressions whilst anxiety in general is associated with vigilance for angry expressions. This is the first study to demonstrate this specificity pattern in the offspring of anxious mothers.

The fourth paper complements the study by Creswell et al. by further exploring the role of parents in child social phobia. In this paper, **de Vente, Majdandžić, Colonnese and Bögels (2011)** examine the longitudinal relationship between parental social anxiety, parenting styles, fear of negative child evaluation (FNCE) and early signs of social anxiety. The results suggest the FNCE might be an important construct for explaining the intergenerational transmission of social anxiety. In addition, de Vente et al. further contribute to the literature by comparing pathways for mothers and fathers and considering the role of parenting styles.

The next five papers examine various aspects of how socially anxious children perceive themselves or are perceived by others whilst they complete social tasks. **Miers, Blöte, Sumter, Kallen and Westenberg (2011)** assessed participants' subjective and objective arousal as they completed a speech task. The results suggest that all children may be poor at judging their own physiological arousal, regardless of their level of state anxiety or social anxiety. However, participants high in social anxiety may be more likely to overestimate their physiological arousal. These findings suggest that children with high levels of social anxiety may exhibit a cognitive bias that leads them to overestimate their physiological arousal.

Miers et al. (2011) also examined the role of self-focused attention in social anxiety, finding that self-focused attention during task completion was a significant predictor of subjective arousal for all participants, not just those high in social anxiety. The paper by **Kley, Tuschen-Caffier and Heinrichs (2011)** examines this further by manipulating attention focus during a story-telling task. Higher levels of anxiety, more frequent negative thoughts and poorer anticipated evaluations of performance were found when participants were instructed to focus on their thoughts, feelings and bodily sensations. This effect was not moderated by anxiety group, showing that the manipulation had a similar effect on children diagnosed with social phobia, children high in social anxiety and control children. These findings are not consistent with cognitive models of social anxiety, which predict that socially anxious individuals should be more susceptible to the negative effects of self-focused attention.

The papers by **Dodd, Hudson, Lyneham, Morris and Monier (2011)** and **Krämer, Schmitz, Seefeldt, Heinrichs, & Tuschen-Caffier (2011)** both examine the relationship between social anxiety and observer ratings of social skill during performance tasks. Both papers report some evidence for social skill deficits in socially anxious children. In addition, the Dodd et al. paper examines whether socially anxious children underestimate their social skill, relative to observer ratings. The results suggest that all participants underestimate their social skill when state anxiety is high, not just those who are socially anxious. The Kramer et al. paper also contributes to the literature by examining how social anxiety during performance tasks affects cognitive performance. Both papers make an important contribution to our understanding of social skill deficits in socially anxious children.

Using a zero-acquaintance paradigm, **Barrow, Baker and Hudson (2011)** demonstrate that anxiety disordered children, specifically, socially phobic children, are less liked and are judged as less attractive than children without anxiety disorders. This paper replicates previous findings of a specific relationship between social phobia and peer dislike and demonstrates the importance of observed anxiety and perceived physical attractiveness in determining peer dislike.

In the final paper, **Scharfstein and Beidel (2011)** provide an overview of the literature related to the treatment of social phobia in children and highlight that some established cognitive behavioural therapies may not adequately address the specific needs of socially phobic children. To improve the efficacy of treatment, research that provides insight into the processes that underpin the development and maintenance of social anxiety is important. The research presented in this special issue has a number of important implications for treatment. First, both the Creswell et al. (2011) paper and the Waters et al. (2011) paper demonstrate a complex pattern of attentional bias, with both vigilance and avoidance associated with social phobia. This calls into question the rationale for basic attentional bias training paradigms that simply train avoidance of negative stimuli. Second, the results presented by Kley et al. (2011) suggest that attention retraining, in which children are taught how to direct their attention away from themselves in social situations, may be a useful addition to treatments for social phobia. Finally, Dodd et al. (2011) and Kramer et al. (2011) both present evidence that socially phobic children have poor global social skills. This suggests that inclusion of social skills training in treatments for social phobia is justified. In addition, the results presented by Dodd et al indicate that video feedback could be useful in specific circumstances but that it should be used with caution given that some children with social phobia appear to have genuine social skill deficits.

Further to these treatment implications, a number of themes and areas for future research emerge across the papers in this special issue. Several of the papers present findings that suggest the cognitive factors linked to social anxiety may also be present in non-anxious children. For example, Miers et al. (2011) showed that all children are poor at judging their physiological arousal. In addition, Kley et al. (2011) showed that all children experienced increased anxiety when instructed to pay attention to their thoughts and feelings and Dodd et al. (2011) showed that all children are more likely to underestimate their social skill when state anxiety is high. These findings therefore lead to questions regarding which factors are features of social phobia and which are normal processes experienced by all children under certain conditions, such as increased social anxiety or increased threat of negative evaluation.

The papers differ in relation to the populations studied, with some papers using community samples (e.g. Broeren et al., 2011, Barrow et al., 2011), others using clinical samples with comorbid diagnoses (e.g. Dodd et al., 2011) and still others using pure social phobia samples, excluding those with comorbid diagnoses (e.g. Creswell et al., 2011). To contribute to theories of social phobia, research that uses 'pure' samples may be required as this allows factors associated with social phobia to be differentiated from factors associated with anxiety in general. The Creswell et al. paper provides a good example of this. However, as childhood anxiety disorders are highly comorbid, this approach can be criticised as not providing a true representation of the clinical population and can pose a challenge in terms of sample size. As many of the researchers acknowledge, the ideal approach is perhaps to aim to replicate findings across both pure and comorbid samples.

A range of factors are examined across the papers in this special issue, including attentional bias for emotional faces, subjective arousal, subjective appraisal of performance and parental cognitions. To maximise the implications for theory and treatment, it will be useful for future research to make use of longitudinal designs (as demonstrated by de Vente et al., 2011 and Creswell et al., 2011) as well as experimental designs (as demonstrated by Kley et al., 2011, for example) to examine what role these factors play in the development or maintenance of social phobia over time.

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