Running head: Linking shyness to social anxiety

Linking shyness to social anxiety in children through the Clark and Wells cognitive model

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Abstract

Past research has begun to show that cognitive biases partially mediate the relation between shyness and social anxiety. In addition, it has been showed that the Clark and Wells (1995) cognitive model generalizes to youth. This study investigated the mediating role of the model in the link between shyness and social anxiety. Participants were 306 preadolescents, who completed measures of shyness, social anxiety, and cognitive variables implicated by the model (anticipatory processing, post-event processing, and social attitudes). The results confirmed that shyness, social anxiety and maladaptive cognitive processes were intercorrelated. Further, in a multiple mediator model, social attitudes, but not anticipatory or post-event processing, partially mediated the relation between shyness and social anxiety. Implications for school prevention interventions are briefly discussed.

Keywords: Social anxiety; Shyness; Cognitive bias; Clark & Wells model; Preadolescent

Linking shyness to social anxiety through the Clark and Wells cognitive model of social phobia

Social anxiety is defined as "a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others" (American Psychiatric Association, 1994, p. 41). Severe and chronic forms of social anxiety have their onset in mid-adolescence (with a median age of onset of 13 years; Kessler et al., 2005), and if left untreated or improperly treated, they can cause debilitating distress and academic, professional and/or social dysfunction or lead to other mental disorders such as depression (Kearney, 2006; Stein et al., 2001).

According to the Clark and Wells (1995) model, one of the most influential information-processing models of social anxiety so far, socially anxious individuals develop a series of problematic assumptions about themselves and their social world, on the basis of early experience (e.g., "I must always have something interesting to say"; "If people see me shake they'll think I am stupid"; "I'm incompetent"). Such assumptions lead these individuals to appraise social or performance situations as dangerous, which in turn generates anxiety.

The anxiety and negative appraisals are maintained by a series of vicious circles. Three stages of distorted processing can be distinguished: (1) the *anticipatory processing phase*, during which socially anxious individuals tend to review in detail – prior to a social event – what might happen and methods that might deal with particular problems, and tend to recall and dwell on past social failures, (2) the *in-situation processing phase*, during which these individuals – upon entering a social interaction – shift their attention from observation of others to detailed monitoring and observation of themselves, experience negative automatic thoughts, and tend to engage in various safety behaviours, and (3) the *post-event processing phase* during which, after leaving a social situation, socially anxious people spend a good deal of time and effort reviewing the past interaction in detail or dwelling on their anxious feelings and negative self-perceptions deriving from it. In later metacognitive revisions of the model (e.g., Wells, 2007), anticipatory and post-event processing were hypothesized to moderate and/or mediate the relationship between dysfunctional cognitions and social anxiety.

The Clark and Wells model has gained substantial empirical support since its publication in 1995, especially in studies conducted in the adult population. Thus, there is now evidence that individuals with clinical or sub-clinical levels of social anxiety appraise social events negatively (Stopa & Clark, 2000; Vassilopoulos, 2006), more frequently use safety behaviours (McManus, Sacadura, & Clark, 2008) and report more negative self-related thoughts (Dodge, Hope, Heimberg, & Becker, 1988; Vassilopoulos, 2008a). Moreover, adults with high level of social anxiety report engaging more frequently in anticipatory processing or post-event processing than adults with a low level of social anxiety (Rachman, Gruter-Andrew, & Shafran, 2000; Vassilopoulos, 2004; 2008a).

More recent studies have suggested that the Clark and Wells model applies equally to older children and adolescents high in social anxiety (Hodson, McManus, Clark, & Doll, 2008; Ranta, Tuomisto, Kaltiala-Heino, Rantanen, Marttunen, 2013; Schreiber, Höfling, Stangier, Bohn, & Steil, 2012). For example, Hodson et al. (2008) were among the first to examine the applicability of the cognitive model of social phobia in a sample of 11- to 14-year-old pre-adolescents (N = 171). Employing self-report measures, the authors found that negative social cognitions, safety behaviours, self-focused attention, and pre-and post-event processing were all significant predictors of children's social anxiety, over and above other childhood mental disorders, such as depression. Similarly, Vassilopoulos (2008a) and Schmitz, Krämer, Blechert and Tuschen-Caffier (2010) both demonstrated that older children with high levels of social anxiety or social phobia also engage in anticipatory or post-event processing, respectively, consistent with the cognitive model of Clark and Wells (1995).

Shyness (also known as behavioural inhibition) can be conceptualized as the presence of excessive self-consciousness and negative self-evaluation in response to real or imagined social interactions (Carducci, 2000; Cheek & Buss, 1981). It is a biologically based temperamental trait that can be observed very early in life (Asendorpf, 1991), it has been linked to various maladaptive cognitive processes (LoBue, & Pérez-Edgar, 2014; Pérez-Edgar et al., 2011; Wichman, Coplan, & Daniels, 2004; however see Dodd, Hudson, Morris, & Wise, 2012, for an opposite pattern of results) and has been implicated in the development of social anxiety in adolescence (Degnan, Almas, & Fox,

2010; Essex, Klein, Slattery, Goldsmith, & Kalin, 2010; Lewis-Morrarty, Degnan, Chronis-Tuscano, Pine, Henderson, & Fox, 2014). Despite increasing focus on the role of negative thinking in the emergence and exacerbation of various socio-emotional problems in youths (Abela, Brozina, & Haigh, 2002; Silverman, LaGreca, & Wasserstein, 1995), only one study (Weeks, Ooi, & Coplan, in press) so far has investigated the potential mediating role of cognitive biases in the link between shyness and social anxiety.

Weeks et al. (in press) examined the indirect effect of shyness on social anxiety through judgment biases in a large sample of adolescents aged 10 to 14 years. They found that shyness, judgment biases and social anxiety were significantly and positively intercorrelated. Crucially, elevated judgments of the probability and cost of negative social events *partially* mediated the relation between shyness and social anxiety. Thus there is preliminary empirical support for the mediation model "shyness→ cognitive bias social→ anxiety" in an early adolescent population. Nevertheless, no study exists that applies the Clark and Wells model to explain the nature of the associations between shyness and social anxiety. This relative paucity of research is noteworthy in view of increasing evidence that the Clark and Wells cognitive model of social phobia successfully generalizes to older children and adolescents (Schreiber et al., 2013; Vassilopoulos et al., 2015). Understanding the extent to which the Clark and Wells model serves as an explanatory mechanism through which shy children and adolescents tend to experience social anxiety may assist mental health professionals in developing effective preventive interventions.

Relevant to our study is also the theoretical model postulated by Muris, Fokke, and Kwik (2009) regarding the role of repetitive negative thoughts in emotional problems. According to their model, worry and rumination are both seen as cognitive factors that follow from the general vulnerability factor of neuroticism (a construct similar to shyness), which predisposes individuals to develop high symptoms of anxiety. Indeed, Broeren, Muris, Bouwmeester, Kristiaan, van der Heijden, and Abee (2011) found support for this model in a sample of non-clinical children aged 8-13 years. The results of their cross-sectional study showed that the cognitive functions of worry and rumination acted as partial mediators in the relationship between neuroticism and

symptoms of anxiety and depression. Given the functional similarities between worry/rumination and anticipatory/post-event procesing (McEvoy, Mahoney, & Moulds, 2010), one might assume - based on the Muris et al. (2009) model - that anticipatory and post-event processing might act as intermediary factors in the link between shyness and social anxiety in youths.

The aim of the current study was to explore the nature of the intercorrelations among shyness, cognitive processes in the Clark and Wells (1995) model, and social anxiety. Dysfunctional social attitudes and the role of anticipatory and post-event processing as cognitive components were included to evaluate their contribution to the link between shyness and social anxiety in youths. Based on the literature review mentioned above, we hypothesised that (a) shyness would be positively associated with social anxiety symptoms, (b) shyness would also be associated with cognitive variables in the Clark and Wells (1995) model (i.e., anticipatory processing, post-event processing and negative social attitudes), (c) all cognitive variables will be associated with symptoms of childhood social anxiety, and (d) the association between shyness and social anxiety would be significantly reduced (partial mediation) or eliminated (full mediation) when controlling for the cognitive variables in the Clark and Wells model.

Participants and procedures

Three hundred and six 10 to 11-year-old children (M = 10.50, SD = 0.50) were recruited (161 girls, 145 boys) from fifth and sixth grade classes in mostly urban schools. School administrators and class teachers were informed of the purpose of the study and all participating students gave oral consent prior to assessment. The questionnaires were administered during lessons at school. Students were first informed that participation was anonymous and voluntary, and that they could withdraw from the study at any time without giving any explanation (no student declined to participate). They were then asked to complete a set of five questionnaires as well as to answer a few demographic questions regarding age, gender, and grade. During assessment, the investigator circulated in the classroom and provided assistance as needed. Finally, students returned the set of questionnaires to the investigator after completion and were thanked for their participation. The average completion time for all the questionnaires was about 40 minutes.

Measures

Social Anxiety Scale for Children—Revised (SASC-R; LaGreca & Stone, 1993). The SASC-R is a 22-item scale assessing children's subjective feelings of social anxiety (and its correlates, such as avoidance and inhibition) in the context of various interpersonal situations. It contains 18 descriptive self-statements (e.g., "I worry that other children don't like me") and four filler items reflecting children's activity preferences (e.g., "I like to play sports"). In the original study using the SASC-R (LaGreca & Stone, 1993), children were asked to rate how true each statement was for him or her on a 5-point Likert-type scale. However, in the present study a 3-point scale (0 = *never true*, 1 = *sometimes true*, 2 = *always true*) was used to make it more straightforward for children. Satisfactory psychometric properties of the 5-point SASC-R (e.g., internal consistency, discriminant and convergent validity, test–retest reliability) have been demonstrated in numerous elementary school samples (e.g., La Greca, Dandes, Wick, Shaw, & Stone, 1988; La Greca & Stone, 1993). Each child's social anxiety score was obtained by summing across items. The SASC-R showed good internal reliability in the current sample ($\alpha = .83$).

Children's Shyness Questionnaire (*CSQ*; Crozier, 1995). Children completed a 26-item self-report measure of shyness (e.g., "I am usually shy in a group of people"). The items were scored on a 3-point scale (0 = *never*, 1 = *sometimes*, 2 = *always*). Items 9, 10, 15, 16, and 23 were worded in the opposite direction and thus were reverse-scored. The reliability and validity of the CSQ are well established (Crozier, 1995; Spooner & Evans, 2005). In the current sample Cronbach's alpha was good ($\alpha = .83$).

Social Attitudes Questionnaire (SAQ). Children's social attitudes were measured with the SAQ (Clark, 1995), a 49-item measure developed to assess dysfunctional socially phobic attitudes (e.g., "I must not show signs of weakness to others"). The wording was adjusted to fit the developmental level of the sample. Each item is answered on a 1 (*totally agree*) to 7 (*totally disagree*) rating scale. Items worded in the opposite direction were reverse-scored so that low scores on this measure indicate more dysfunctional socially phobic attitudes. The good psychometric characteristics were confirmed in our sample (Cronbach's $\alpha = .87$) and in another youth sample (Schreiber et al., 2012; Cronbach's $\alpha = .88$).

Anticipatory Processing Questionnaire (APQ; Vassilopoulos, 2008b). The APQ is a 15-item measure developed to assess how much children engage in ruminative cognitive processes in anticipation of an anxiety-provoking situation. For each item, children judged the amount of ruminative thinking they would engage in when anticipating a recent sporting activity on a 100-point visual analogue scale. Cronbach's alpha was .81 in our study. The measure was chosen because it is the only validated measure of anticipatory processing in a non-clinical child population (Vassilopoulos, 2008a).

Post-event processing (PEP; Rachman et al., 2000). Children completed nine questions assessing how much they processed the same anxiety-provoking situation after it was over on a 100-point visual analogue scale. Questions were based upon those used by Rachman et al. (2000) and wording was adjusted to fit the developmental level of the sample. Items were summed to yield an estimate of post-event processing. This measure was chosen because, at the time this study was designed, it was the only validated measure of post-event processing in socially anxious people. Cronbach's alpha for this scale was good ($\alpha = .81$).

Results

Preliminary analyses

Table 1 presents descriptive statistics and correlations among the study variables. Consistent with expectations, shyness, anticipatory processing, post-event processing, social attitudes and social anxiety were all significantly intercorrelated in the expected directions (recall that *low* scores on social attitudes indicate *more* dysfunctional socially phobic attitudes). Girls were not significantly higher than boys in any of the variables (*t*s < .5). Thus gender was not examined further in subsequent analyses.

Multiple mediator analysis

We conducted a multiple mediator analysis to examine whether social attitudes, anticipatory processing and post event processing jointly mediated the relationship between shyness and social anxiety. This analysis also tested which of the putative mediators remained uniquely associated with social anxiety after controlling for shyness, and which of these variables uniquely mediated the relationship between shyness and social anxiety. We examined (i) the significance of the overall indirect effect, and (ii) the

significance of the individual indirect effects through each of the putative mediators, using Preacher's PROCESS macro (Hayes, 2013) with 10,000 resamples. This macro uses bootstrapped standard errors to construct 95% confidence intervals for (i) the magnitude of the overall indirect effect and (ii) the magnitude of the individual indirect effects, where significance is indicated by the relevant confidence interval not spanning zero.

Results of this model are presented in Table 2 and Figure 1. In the multiple mediator model, anticipatory processing, $\beta = .02$, $p = .76$, and post-event processing, $\beta = .07$, $p = .20$, were not significantly and uniquely associated with social anxiety after controlling for shyness. However, social attitudes were uniquely associated with social anxiety, $\beta = -.25$, $p < .001$, after controlling for shyness, which remained significantly associated with social anxiety, $\beta = .58$, $p < .001$. Bootstrapping of the standard errors for the indirect effects revealed that the joint indirect effect between shyness and social anxiety via the three mediators was statistically significant, 95% CI [.064, .161]. When examining the indirect effects individually, there was a significant unique effect from shyness to social anxiety via social attitudes, 95% CI [.051, .120], but there was no significant unique effect from shyness to social anxiety via either anticipatory processing, 95% CI [–.039, .057] or post-event processing, 95% CI [–.015, .064]. Thus, although the cognitive variables were all significantly associated with one another and with social anxiety, only social attitudes uniquely mediated the relationship between shyness and social anxiety. Notably, this statistically significant mediated effect was only partial: only 20% of the association between shyness and social anxiety was mediated by the three cognitive variables.

Discussion

The purpose of the current study was to explore the nature of the interassociations among shyness, social anxiety and some of the cognitive variables described in the Clark and Wells (1995) model. Specifically, we examined the indirect effect of shyness on social anxiety through negative social attitudes, anticipatory processing and post-event processing in early adolescence. The main results can be catalogued as follows. First, as hypothesized, shyness was significantly associated with social anxiety, which supports previous research showing these associations in childhood and adolescence (Brouzos,

Vassilopoulos, & Moschou, 2016; Coplan, Rose-Krasnor, Weeks, Kingsbury, Kingsbury, & Bullock, 2013; Huan, Ang, & Chye, 2014; Karevold, Ystrom, Coplan, Sanson, & Mathiesen, 2012; Weeks et al., in press). Second, shyness was related to dysfunctional social attitudes, as well as to anticipatory or post-event processing, supporting past studies which found that shy children and adolescents may be susceptible to developing maladaptive cognitive processes (LoBue, & Pérez-Edgar, 2014; Pérez-Edgar, Bar-Haim, McDermott, Chronis-Tuscano, Pine, & Fox, 2010; Wichman, Coplan, & Daniels, 2004). These types of associations are important in themselves because all three cognitive variables (i.e., anticipatory processing, post-event processing and dysfunctional social attitudes) have been implicated in the development and maintenance of debilitating social anxiety (Clark & Wells, 1995; Wong, 2016). Third, indices of childhood social anxiety were found to be associated with all indices of maladaptive cognitive processes described by the Clark and Wells (1995) model. This is also in line with accumulating evidence indicating the model's generalization to children and adolescents (Ranta et al., 2013; Schreiber et al., 2012; Vassilopoulos, Brouzos, Moberly, Tsorbatzoudis, & Tziouma, in press).

Fourth and most importantly, negative social attitudes, but not anticipatory or post-event processing, was a uniquely important intermediary factor in the relationship between shyness and social anxiety, which offers partial support for the hypothesized mediation model. This finding not only further supports the notion that biased cognitions are involved in the development and maintenance of emotional problems in children and adolescents (see Muris, 2010, for a review), but also indicates that distorted thinking in young people seem to play a similar role in the vulnerability for such symptoms as in adults. According to the Clark and Wells (1995) model, negative assumptions about the self and others (e.g., "I am incompetent", "Others will find fault with me") are particularly problematic because they can set in motion further maladaptive processes such as negative automatic thoughts ("I can't do it"), biased attentional processes, and biased perception of ambiguous social cues ("s/he is trying to avoid me"). Negative assumptions can also lead to a dramatic increase in self-preoccupation before a social situation, which in turn, predisposes the individual either to avoid the stressful activity or endure it with intense anxiety, expecting failure and disapproval (Clark & Wells, 1995;

Wells & Clark, 1997). Therefore, these results could offer a conceptual pathway whereby shyness leads to cognitive biases, which, in turn, lead to social anxiety.

As mentioned before, anticipatory and post-event processing were not found to uniquely mediate the link between shyness and social anxiety. These non-significant findings appear to contrast with the results reported by Broeren et al. (2011), according to which worry and rumination both acted as partial mediators in the relation between neuroticism and symptoms of anxiety. It is difficult to account for the pattern of results observed here. One possibility is that they reflect the more central role for negative social attitudes on social anxiety that is not shared with post-event processing or anticipatory processing. Indeed, as mentioned above, a core unique characteristic of socially anxious individuals is their perception of self as being deficient or contrary to perceived societal expectations or norms (Clark & Wells, 1995; Moscovitch, 2009).

Another possibility is that the operation of both anticipatory and post-event processing requires higher order thinking such as metacognitive skills and executive functioning (EF) that are not fully developed until mid-adolescence (Baird & Fugelsang, 2004). However, this explanation seems less likely in view of the increasing evidence that both repetitive thinking styles are already discernible in early adolescence and are also possibly linked to symptoms of social anxiety in youths (Krämer, Blechert, & Tuschen-Caffier, 2010; Vassilopoulos, 2008a). Alternatively, it may be that the measures used in the current study failed to capture the problematic repetitive processes described by Clark and Wells (1995). Both APQ and PEP scales are rather generic, unifactorial self-report measures, in the sense that they mainly measure the extent to which individuals tend to engage in repetitive thinking before or after a socially distressing event. Nevertheless, it has been argued that it is not only the extent to which one engages in them, but also the content (along with the processing mode; Watkins, Moberly, & Moulds, 2008) of anticipatory and post-event processing that plays a role in the maintenance of social anxiety symptoms (Vassilopoulos, 2004; 2005). In addition, there is recent evidence suggesting that both repetitive thinking styles are better conceptualized as including more than one factor (Mills, Grant, Lechner, & Judah, 2013; Wong, 2015). Future studies might further investigate the issue using more comprehensive scales that better differentiate between different components within each repetitive negative thinking

style (e.g., The Anticipatory Social Behaviours Questionnaire; Mills et al., 2013) and across a broader age-range, spanning from childhood to late adolescence. Finally, it is important to note that anticipatory processing and post-event processing were highly correlated, sharing over 50% of their variance. Much of this shared variance, which represents repetitive thinking style, is likely to overlap with anxiety (Fresco, Frankel, Mennin, Turk, & Heimberg, 2002; McLaughlin, Borkovec, & Sibrava, 2007). Inclusion of anticipatory processing and post-event processing in the model may therefore make it difficult to detect unique mediating relationships for either of them individually. A composite of these variables (representing rumination) may uniquely mediate the relationship between shyness and social anxiety, independent of socially phobic attitudes.

One further limitation of the current study is that it relied on self-report questionnaire data, and thus the relationships among the study variables may have been inflated due to shared method variance or recollection bias. In addition, the present study relied exclusively on self-report and future studies should take a more comprehensive multi-method approach, including teacher and peer ratings of certain behaviors, as well as naturalistic observations. Furthermore, this research was correlational in nature, so it is difficult to draw conclusions on cause-effect relationships, although from a theoretical point of view the chain of relationships among these variables seems plausible (e.g., Broeren et al., 2011; Weeks et al., in press). Similarly, because the variables were measured simultaneously, other specifications of the mediation are possible which do not assume that the causal relationship is from shyness to the cognitive variables and then to social anxiety. For example, it may be that shyness is a mere epiphenomenon of being high in social anxiety or of engaging in unproductive thoughts about the impression one gives to others.

Consistent with the findings reported by Weeks et al. (in press), our results indicated that negative social attitudes only *partially* mediated the association between shyness and social anxiety. Although this might be an artifact of the construct overlap observed between shyness and social anxiety (they have about 50% overlapping variance), the current findings represent only one of the possible ways shyness may lead to social anxiety symptoms in children and adolescents. There are a number of additional cognitive processes described in the Clark and Wells model that could add exploratory

value in understanding the above mentioned associations. Indeed, Clark and Wells (1995) also indicated heightened self-focused attention, the use of safety behaviours and the experience of distorted self-images as important maladaptive processes implicated in the initiation and maintenance of social anxiety. Future studies should examine a broader range of cognitive processes, and across a broad age-range, in order to ascertain their mediating/moderating role in the links between shyness and social anxiety.

Notwithstanding the above-mentioned limitations, and provided that they will be replicated in an experimental design, these results could have important practical implications. In particular, they appear to tentatively suggest that targeting dysfunctional social attitudes described by the Clark and Wells model could affect the trajectory from shyness to social anxiety. There is already evidence that the dysfunctional cognitive style characteristic of socially anxious individuals is not unalterable, but rather can be beneficially modified. For instance, Vassilopoulos and colleagues (Vassilopoulos, Banerjee, & Prantzalou, 2009; Vassilopoulos, Blackwell, Moberly, & Karahaliou, 2012) developed a cognitive bias modification procedure for children with subclinical social anxiety symptoms, which was proven effective in changing their cognitive patterns, resulting in significantly reduced social anxiety levels. Thus, interventions for temperamentally vulnerable children may be generally more effective at altering their developmental trajectories if maladaptive social attitudes are targeted in particular.

To conclude, negative social attitudes, when controlling for anticipatory or post-event processing, were found to partially mediate the relation between shyness and social anxiety. This result offers partial support for the mediating role of maladaptive processes described in the Clark and Wells (1995) cognitive model of social anxiety in the relation between shyness and social anxiety in early adolescence. In adult social anxiety, the model has provided a sound theoretical background from which particularly effective cognitive interventions have been derived (Clark et al., 2003, 2006). Thus, pending experimental support for causality, our results could have implications for early school prevention interventions targeting maladaptive social cognitions and extreme shyness in children.

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Table 1. *Descriptive statistics and correlations among study variables*

	1	2	3	4	5	6	*M*	*SD*
1. Gender	—	-.06	-.04	-.03	-.04	.04	—	—
2. SASC-R		—	.72***	-.52***	.41***	.39***	11.4	6.0
3. CSQ			—	-.42***	.49***	.41***	17.0	7.8
4. Soc Att				—	-.25***	-.28***	223.9	32.9
5. Ant Proc					—	.72***	38.1	9.0
6. PE Proc						—	19.0	6.1

Note. Gender dummy-coded (0 = female, 1 = male), SASC-R = Social Anxiety Scale for Children-Revised, CSQ = Children's Shyness Questionnaire, Soc Att = Social Attitudes Questionnaire, Ant Proc = Anticipatory Processing, PE Proc = Post-Event Processing.

*** $p < .001$.

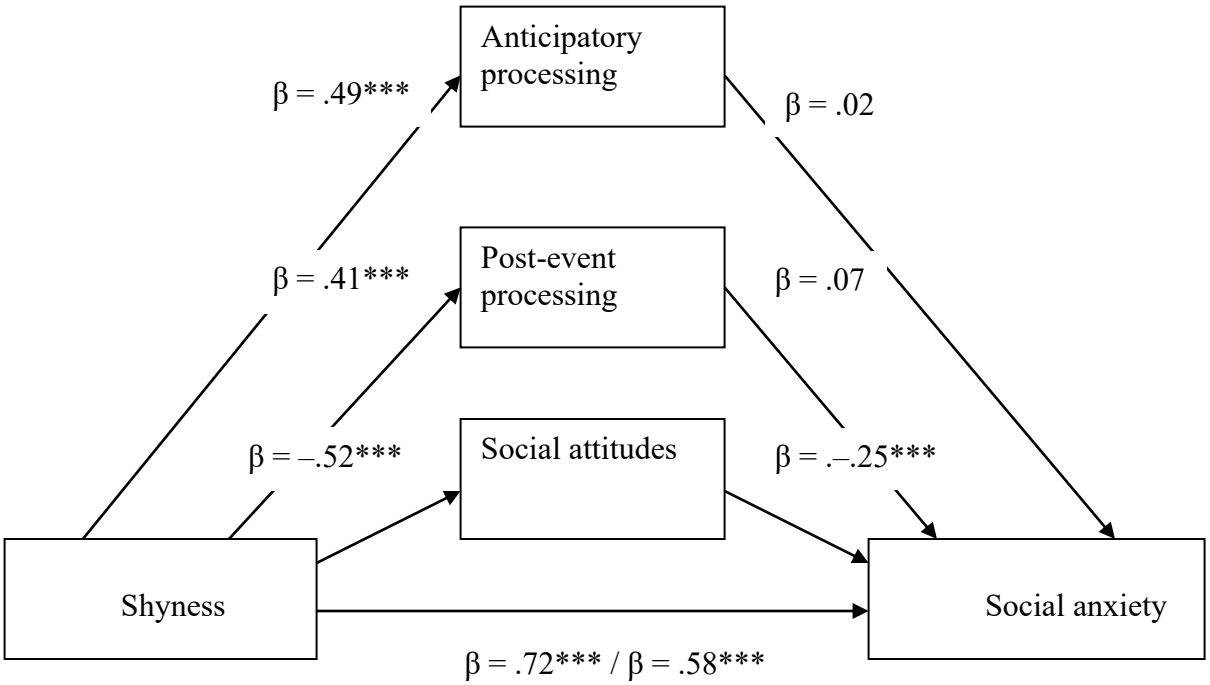
Table 2. Summary of multiple mediator regression model predicting social anxiety

Effect	*B*	*SE*(*B*)	*t*	*p*	Boot 95% CI
Shyness=>Social Anxiety (total)	0.557	0.031	18.12	< .001	
Shyness=>Social Attitudes	-1.781	0.219	8.13	< .001	
Shyness=>Post Event Processing	0.318	0.041	7.81	< .001	
Shyness=>Anticipatory Processing	0.565	0.058	9.83	< .001	
Social Attitudes=>Social Anxiety	-0.045	0.008	-5.93	< .001	
Post Event Processing=>Social Anxiety	0.070	0.055	1.29	.20	
Anticipatory Processing=>Social Anxiety	0.012	0.038	0.31	.76	
Shyness=>Social Anxiety (direct)	0.447	0.036	12.58	< .001	
Shyness=>Social Anxiety (indirect)	0.110	0.025			[0.064, 0.161]

Figure captions

Figure 1. Multiple mediator model examining the indirect effects of shyness on social anxiety through the cognitive processes described in the Clark & Wells model. The two associations presented for the relationship between shyness and social anxiety provide the total effect followed by the direct effect.

Figure 1.


Anticipatory processing
β = .49***
β = .02
Post-event processing
β = .41***
β = .07
Social attitudes
β = –.52***
β = .–.25***
Shyness
Social anxiety
β = .72*** / β = .58***