# An empirical analysis of Moscovitch's reconceptualised model of social anxiety: How is it different from fear of negative evaluation?

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## ARTICLE INFO

## ABSTRACT

Cognitive-behavioural models propose that excessive fear of negative evaluation is central to social anxiety. Moscovitch (2009) instead proposes that perceived deficiencies in three self attributes: fears of showing signs of anxiety, deficits in physical appearance, or deficits in social competence are at the core of social anxiety. However, these attributes are likely to overlap with fear of negative evaluation. Responses to an online survey of 286 participants with a range of social anxiety severity were analysed using hierarchical multiple regression to identify the overall unique predictive value of Moscovitch's model. Altogether, Moscovitch's model provided improvements in the prediction of safety behaviours, types of fears and cognitions; however only the fear of showing anxiety subscale provided unique information. This research supports further investigations into the utility of this revised model, particularly related to utility of explicitly assessing and addressing fears of showing anxiety.

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## 1. Introduction

Social Anxiety Disorder (SAD) is a highly prevalent mental disorder, associated with high levels of chronicity, distress and functional impairment (Stein & Stein, 2008; Wong, Gordon, & Heimberg, 2014). First introduced in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM; American Psychiatric Association, 1980), it is currently defined as a marked and persistent fear of negative evaluation, embarrassment, rejection or offending others (American Psychiatric Association., 2013). Growing evidence now supports the existence of a continuum of social anxiety severity; meaning SAD reflects only a difference in the degree of social anxiety a person experiences in clinical and non-clinical presentations (Crome, Baillie, Slade, & Ruscio, 2010; Ruscio et al., 2008). The high personal, social and economic costs of clinical (Stein & Stein, 2008) and sub-clinical levels of social anxiety (Acarturk, de Graaf, Van Straten, Have & Cuijpers, 2008) highlights the need for understanding the processes involved in causing and maintaining social anxiety.

Two of the most influential cognitive models of social anxiety, Clark and Wells' (1995) and Rapee and Heimberg's (1997), posit that fear of negative evaluation is central to causing and maintaining social anxiety. Fear of negative evaluation encompasses feelings of apprehension about others' evaluations, distress over these evaluations, and the expectation that others will evaluate one negatively. Individuals with high levels of social anxiety frequently try to reduce the potential for negative evaluation through safety behaviours (Wells et al., 1995); yet are also observed to have strong attentional biases toward threat-consistent information in social situations (see Heinrichs & Hofmann, 2001). Fear of negative evaluation is commonly measured by the Fear of Negative Evaluation scale (FNE; Watson & Friend, 1969) and the revised Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983). Scores on these measures predict various aspects of social anxiety behaviour including catastrophising, over-estimation of the visibility of anxiety to others, and increased focus on negative social cues (see Weeks et al., 2005).

However, Moscovitch (2009) argues that previous cognitive-behavioural models of social anxiety (e.g., Clark and Wells', 1995; Rapee and Heimberg, 1997) are unsatisfactory because they confuse feared stimuli (i.e., the focus of anxiety) with feared consequences (i.e., feared outcomes when stimuli are present; e.g., negative evaluation: Moscovitch, 2009, p.124). Instead, he argues that theoretical focus should be directed toward the specific self-attributes that individuals with social anxiety perceive to be flawed or deficient. Rather than a general fear of negative evaluation, this model suggests fear of negative evaluation and embarrassment are

feared consequences of deficient self-attributes being exposed to public scrutiny. In order to reduce potential exposure of flawed self-attributes, people may use safety behaviours as selective self-concealment strategies. In his original model, Moscovitch proposed four primary areas of perceived self-deficiencies: social skills and behaviours (e.g., *I will do something stupid*), showing signs of anxiety (e.g., *I will sweat*), physical appearance (e.g., *I am ugly*) and character (e.g., *I am boring*). However, after operationalising these in the Negative Self-Portrayal Scale (NSPS; Moscovitch and Huyder, 2011) only three were supported by factor analyses: concerns about social competence, physical appearance, and showing signs of anxiety. These three remaining subscales were highly correlated ($r = .59–.77$).

To date, Moscovitch and colleagues have provided empirical support for this revised model by demonstrating that the total scores on the NSPS predict patterns in a) safety behaviours, b) types of feared situations, and c) feared consequences. This includes findings that overall scores on the NSPS are strongly associated with existing measures of social anxiety and depression; yet account for a significant portion of unique variance in self-concealment over and above existing social interaction and performance measures (Moscovitch and Huyder, 2011; Moscovitch et al., 2013). There is also support for the specific individual self-attribute concerns being highly represented in the negative self-images that individuals with social anxiety report experiencing (Chiupka, Moscovitch, & Bielak, 2012; Moscovitch, Gavric, Merrifield, Bielak, & Moscovitch, 2011). This is consistent with Moscovitch's (2009) suggestion that differences in self-attribute concerns may account for the heterogeneity commonly observed in social anxiety symptom expression (see Hofmann, Heinrichs, & Moscovitch, 2004; McManus, Sacadura, & Clark, 2008).

The utility of Moscovitch's (2009) reconceptualised model of social anxiety has been questioned by Heimberg (2009) who suggested that it may not provide an entirely novel approach to the conceptualisation of social anxiety. In response to Moscovitch's assertion that earlier models of social anxiety are unsatisfactory as they confused feared stimuli with feared consequences, Heimberg asserted that these constructs may be inextricably related, with the nature of the situations dictating what possible consequences could be. Heimberg also questioned the utility of assessing four highly correlated domains when a general fear of negative evaluation may be a more parsimonious explanation.

This study aims to empirically test Heimberg's (2009) criticism by establishing whether Moscovitch's (2009) model provides any unique information about aspects of social anxiety (including safety behaviours, triggering situations, and feared consequences) over and above fear of negative evaluation. Consistent with Heimberg's (2009) criticism of the reconceptualised model, we hypothesised that the subscales of the NSPS (i.e., social competence, physical appearance, and signs of anxiety) would not significantly predict variance in any of the outcomes featured in Moscovitch's model (i.e., safety behaviours, fear triggers/types of fears, and feared consequences), over and above a general measure of fear of negative evaluation.

## 2. Method

### 2.1. Participants

A convenience sample of 286 participants were recruited through promotion within university and community settings in exchange for a prize draw (AU $50.00) or course credit. Recruitment strategies intended to capture individuals who identified as having some level of social fear by using statements such as "do you experience some anxiety in social situations?" in promotional

**Table 1**
Demographic characteristics of the participants as a function of recruitment location.

| Demographics | University M (SD) | Community M (SD) |
|---|---|---|
| Age* | 19.3 (.23) | 27.4 (1.5) |
| | % | % |
| Gender | | |
| 0. Male | 33.5 | 36.6 |
| 1. Female | 66.5 | 63.4 |
| Highest education* | | |
| 0. Post high school qualification | 12.6 | 62.0 |
| 1. High school | 87.4 | 38.0 |
| Born in Australia | | |
| 0. No | 15.8 | 21.1 |
| 1. Yes | 84.2 | 78.9 |
| Ethnicity | | |
| 0. Other | 43.3 | 38.0 |
| 1. Caucasian | 56.7 | 62.0 |
| Relationship status | | |
| 0. In a relationship | 37.7 | 38.0 |
| 1. Single | 62.3 | 62.0 |

*Note.* $N = 286$. *Significant differences at $p < .05$.

materials. Further information and consent forms also highlighted that the survey related to social anxiety. The final sample contained 215 participants recruited from university settings and 71 from other locations. Table 1 shows the characteristics of samples. No significant differences on outcome measures were observed across recruitment location; however, participants recruited from the general community were significantly older and had completed more education. Therefore, age and education were controlled for in following analyses. The sample reflected a range of social anxiety severity as measured by the Liebowitz Social Anxiety Scale – Self Report (LSAS-SR; Baker, Heinrichs, Kim, & Hofmann, 2002). Scores on the LSAS-SR revealed that 38 percent of the university sample and 41 percent of the community sample scored above the cut off score for non-generalised SAD; and 41 percent of the university sample and 31 percent of the community sample scored above the cut off score for generalised social anxiety disorder (Rytwinski et al., 2009). These high scores may be a reflection of the targeted recruitment strategy.

### 2.2. Power Analysis

Power analysis using Gpower version 3.1.9 (Faul, Erdfelder, Lang, & Buchner, 2007) indicated that a total sample of 285 participants would be needed to provide 80% power to detect the anticipated effect size of 0.06 based on changes in $R^2$ scores reported by Moscovitch and Huyder (2011). Similar changes in unique variance accounted for by all the sub-scales of the NSPS as a block were anticipated in the current study.

### 2.3. Measures

#### 2.3.1. The Negative Self Portrayal Scale (NSPS; Moscovitch and Huyder, 2011)

The 27-item NSPS was used in this study to examine the feared stimuli construct of Moscovitch's model. The scale assesses the extent to which individuals are concerned that specific self-attributes they perceive as being deficient or flawed will be exposed to scrutiny and evaluation by others in social situations. The scale loads onto three factors: *social competence* (11 items; e.g., lacking social skills, boring), *physical appearance* (8 items; e.g., ugly, poorly dressed) and *signs of anxiety* (8 items; e.g., stuttering, blushing). Participants rate each negative attribute in reference to the statement