Neuroticism and perfectionism as predictors of social anxiety

Jennifer Newby [a], Victoria A. Pitura [a,*], Alexander M. Penney [a,1], Rupert G. Klein [a], Gordon L. Flett [b], Paul L. Hewitt [c]

[a] Lakehead University, Canada
[b] York University, Canada
[c] University of British Columbia, Canada

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ABSTRACT

Prior research has demonstrated relationships between neuroticism, perfectionism, and social anxiety. This study examined whether trait perfectionism (particularly socially prescribed perfectionism [SPP]) and perfectionistic self-presentation predicted social interaction and evaluation anxiety while controlling for neuroticism. It also explored which neuroticism facets uniquely predicted social anxiety. Participants (N = 271) completed self-report measures assessing: social anxiety, trait perfectionism, perfectionistic self-presentation, and neuroticism.
Most notably, results showed that the self-consciousness, vulnerability, and impulsiveness facets of neuroticism uniquely predicted interaction anxiety. Conversely, the self-consciousness, vulnerability, and anxiety facets uniquely predicted evaluation anxiety. Furthermore, while controlling for neuroticism, both SPP and self-oriented perfectionism uniquely predicted evaluation anxiety. Alternatively, nondisplay and nondisclosure of imperfection (but not trait perfectionism) uniquely predicted interaction anxiety. Overall, these findings demonstrate that neuroticism facets and aspects of perfectionism differentially predict social interaction and evaluation anxiety.

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1. Introduction

1.1. Social anxiety and neuroticism

Various theoretical models have identified neuroticism as a core component of personality. The Five Factor Model (FFM) defines neuroticism as the "tendency to experience negative affects such as fear, sadness, embarrassment, anger, guilt, and disgust" (McCrae & Costa, 2010, p. 19). This propensity has been found to relate to various forms of psychopathology, including social anxiety (for a review see Naragon-Gainey & Watson, 2011). Specifically, researchers have revealed a moderate association between social anxiety and the broad neuroticism domain (Naragon-Gainey & Watson, 2011). However, the FFM argues that neuroticism can be divided into six lower-order facets, which reflect specific features of neuroticism (i.e., anxiety ["tendency to be apprehensive, fearful, prone to worry, nervous, tense, and jittery"], angry hostility ["tendency to experience anger and related states"], depression ["tendency to experience depressive affect"], self-consciousness [tendency

to experience "shame and embarrassment"], impulsiveness ["inability to control cravings and urges"],[2] and vulnerability ["vulnerability to stress"]) (McCrae & Costa, 2010, pp. 21–22). Few studies have examined how social anxiety relates to these facets (Bienvenu et al., 2004; Gamez, Watson, & Doebbeling, 2007; Kotov, 2006), and only one measured neuroticism using a non-clinical measure of the FFM (the NEO-PI-R) (Bienvenu et al., 2004). The findings revealed that those diagnosed with social anxiety scored significantly higher than healthy controls on all neuroticism facets except impulsiveness (on which they scored similarly).[3] They also showed those with social anxiety scored highest on the self-consciousness and vulnerability facets. Thus, social anxiety appears to relate differentially to the individual neuroticism facets of the FFM.

1.2. Social anxiety and perfectionism

Numerous studies have also demonstrated a relationship between social anxiety and trait perfectionism (for a review see Flett & Hewitt,

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* Corresponding author at: Department of Psychology, Lakehead University, 955 Oliver Road, Thunder Bay, ON P7B 5E1, Canada.
E-mail address: vpitura1@lakeheadu.ca (V.A. Pitura).
[1] Since this research was initially conducted, Dr. Penney has relocated and is now at MacEwan University.

[2] McCrae and Costa (2010) distinguish the NEO-PI-R-impulsiveness from impulsiveness constructs assessing "spontaneity, risk-taking, or rapid decision time" (pg. 22).
[3] Although some researchers have found evidence of a relationship between social anxiety and impulsiveness (Kashdan & McKnight, 2010) evidence suggests that impulsiveness is multi-faceted (Whiteside & Lynam, 2001), with Kashdan and colleagues assessing a distinct component from that captured by the NEO-PI-R-impulsiveness.

2014). Various researchers have defined perfectionism, with multidimensional conceptualizations growing in popularity since the 1990s (Flett & Hewitt, 2014). According to Hewitt and Flett's (1991) conceptualization, perfectionism is a multidimensional construct comprised of: self-oriented (SOP), other-oriented (OOP), and socially prescribed perfectionism (SPP). Respectively, these dimensions are characterized by excessively high self-standards, demanding perfection from others, and believing others expect perfection (Flett, Greene, & Hewitt, 2004). To date, research has provided consistent evidence of a relationship between SPP and elevated social anxiety (Flett & Hewitt, 2014). Further, although perfectionism was initially conceptualized as a stable personality trait, Hewitt et al. (2003) recently extended the construct to include self-presentation styles commonly adopted by perfectionists. These include the tendency to try promoting a perfect self-image and refrain from displaying/disclosing one's imperfections (Hewitt et al., 2003). Researchers have since established a relationship between tendency to engage in perfectionistic self-presentation and higher levels of social anxiety (Flett & Hewitt, 2014). Furthermore, evidence suggests that self-presentation elements of perfectionism may be even more strongly related than trait perfectionism to social anxiety (Flett & Hewitt, 2014).

1.3. Perfectionism and neuroticism

Previous literature has also considered how perfectionism relates to core personality traits like neuroticism. Typically, researchers have examined the relationship between perfectionism and the broad neuroticism domain. In relation to Hewitt and Flett's (1991) conceptualization, research has shown that neuroticism is most strongly associated with SPP (e.g., Dunkley, Blankstein, & Berg, 2012; Hill, McIntire, & Bacharach, 1997; Rice, Ashby, & Slaney, 2007). Conversely, only two studies (Dunkley & Kyparissis, 2008; Hill et al., 1997) have examined how SPP relates to the specific neuroticism facets. Notably, findings from both revealed significant positive correlations between SPP and each neuroticism facet except impulsiveness.

Despite their relevance to social anxiety, limited research has simultaneously examined how neuroticism and perfectionism relate to social anxiety. This is surprising, given that numerous studies have established neuroticism and perfectionism as unique predictors of depression (Smith et al., 2016). In one study, Dunkley et al. (2012) showed evaluative concerns perfectionism (a broad dimension that includes SPP) to predict general anxious symptoms among university students and anxious arousal among community adults. However, the researchers did not examine these relationships within the context of social anxiety. In another study, which included healthy male participants, Wirtz et al. (2007) also found that perfectionism (but not neuroticism) predicted unique variance in cortisol stress response to a public speaking task. However, the researchers failed to consider self-presentation components of perfectionism, and did not examine anxiety in response to social interactions. Consideration of this form of anxiety is important, given that research has provided support for the value of differentiating between social anxiety subtypes (for a review see Blöte, Kint, Miers, & Westenberg, 2009).

1.4. Purpose

Prior research has linked neuroticism, a well-supported personality trait, with elevated social anxiety. Although perfectionism has also been implicated in social anxiety, surprisingly few studies have examined whether this relationship persists beyond the effects of neuroticism, and none have done so while assessing neuroticism at the facet level. Further, despite growing interest in the relationship between social anxiety and perfectionistic self-presentation, no studies have explored whether this factor also predicts social anxiety beyond the effects of neuroticism. In failing to do so, researchers may be gaining an inaccurate understanding of the role of perfectionism in social

anxiety. This study sought to determine whether trait perfectionism and perfectionistic self-presentation contributed unique variance to social interaction and evaluation anxiety while controlling for neuroticism. Individual neuroticism facets were examined to gain a more thorough and precise understanding of their roles in social anxiety.

2. Method

2.1. Participants and procedure

As part of a larger online study (which examined the relationships between self-management, perfectionism, personality traits, and psychological disorders), 325 individuals consented to participate. Two hundred and seventy-seven participants had scores on at least one social anxiety measure, and 273 were missing only partial data. As recommended in the NEO-PI-R manual, those missing data on at least 41 items were eliminated, leaving a final sample of 271 participants (208 participants were undergraduates, while the remaining 63 were members of the general community). Participants were relatively young ($M = 24.25$, $SD = 9.19$), and primarily female (79.7%) and Caucasian (88.9%). They were recruited via an undergraduate participant pool and the general community using an online university study forum, a Kijiji advertisement, and posters displayed across campus and the community. Measures were completed online (www.surveymonkey.com) in randomized order and took approximately 45 min. Participants provided informed consent and were fully debriefed afterwards. There were no exclusionary criteria or participation restrictions. Undergraduates were remunerated with 1% toward their final grade in a psychology course and community participants were entered into a $50 Visa gift card draw.

2.2. Measures

2.2.1. NEO Personality Inventory-Revised-Neuroticism Subscale (NEO-PI-R-N; Costa & MacCrae, 1992)

A 48-item subscale of the NEO-PI-R, which has respondents indicate how characteristic (1-"strongly disagree" to 5-"strongly agree") each statement is of him/her. Respondents receive a score on the overall domain (0 to 240) and each of five facets (0 to 40). Higher scores reflect more features of the specified trait. The NEO-PI-R-N has been shown to have acceptable internal consistency (domain $\alpha = 0.92$ and facet $\alpha = 0.68$ to 0.70) and high test-retest reliability ($rs = 0.66$ to 0.92; McCrae & Costa, 2010).

2.2.2. Social Interaction Anxiety Scale (SIAS) and Social Phobia Scale (SPS) (Mattick & Clarke, 1998)

Two 20-item measures that assess anxiety toward social interactions and evaluation-type situations, respectively. Respondents rate how true (0 to 4) each statement is of him/her, with scores ranging from 0 to 80 on each. Higher scores reflect greater social anxiety. These measures have been shown to have good internal consistency among non-clinical samples ($\alpha = 0.88$ to 0.90) and high test-retest reliability ($rs = 0.92$ to 0.93; Mattick & Clarke, 1998).

2.2.3. Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1990)

A 45-item, multidimensional measure that has respondents rate how characteristic (1 to 7) each statement is of him/her. Respondents receive scores on three subscales (SOP, OOP, SPP), each with a maximum score of 105. Higher scores reflect higher levels of each perfectionism dimension. The MPS has good internal consistency among non-clinical samples ($\alpha = 0.79$ to 0.89), and high test-retest reliability ($rs = 0.75$ to 0.89; Hewitt & Flett, 1991).

2.2.4. Perfectionistic Self-Presentation Scale (PSPS; Hewitt et al., 2003)

A 27-item measure comprised of three subscales (Perfectionistic Self-Promotion, Nondisplay of Imperfection, and Nondisclosure of