



## Attachment anxiety and implicit self-concept of neuroticism: Associations in women but not men



Uta-Susan Donges<sup>a</sup>, Anne Jachmann<sup>a</sup>, Anette Kersting<sup>a</sup>, Boris Egloff<sup>b</sup>, Thomas Suslow<sup>a,c,\*</sup>

<sup>a</sup> Department of Psychosomatic Medicine, University of Leipzig, Semmelweisstr. 10, 04103 Leipzig, Germany

<sup>b</sup> Department of Psychology, University of Mainz, Binger Str. 14-16, 55122 Mainz, Germany

<sup>c</sup> Department of Psychiatry, University of Münster, A-Schweitzer-Campus 1, 48149 Münster, Germany

### ARTICLE INFO

#### Article history:

Received 16 July 2014

Received in revised form 26 August 2014

Accepted 28 August 2014

Available online 29 September 2014

#### Keywords:

Attachment style

Implicit measure of personality

Neuroticism

Gender

Implicit Association Test

### ABSTRACT

Previous research has shown that adult attachment-related anxiety is associated with the explicit self-concept of neuroticism. It remains to be clarified whether attachment anxiety is related to the implicit self-concept of neuroticism. There is evidence that gender can moderate the strength of correlation between implicit and explicit measures. *The Experiences in Close Relationships* scale and the *NEO Five-Factor Inventory* (NEO-FFI) were administered to 106 healthy adults along with an *Implicit Association Test* assessing neuroticism. Attachment anxiety correlated with NEO-FFI neuroticism, regardless of gender. Attachment anxiety was correlated with neuroticism as measured by the IAT in women but not men. Results from multiple regression analysis showed that gender was a moderator of the relationship between attachment anxiety and implicit neuroticism. Our data suggest that in the associative network of women with high attachment anxiety associative representations of the self are more strongly linked to attributes of neuroticism compared to women with low attachment anxiety.

© 2014 Elsevier Ltd. All rights reserved.

### 1. Introduction

From the beginning, attachment theory was conceived as a general theory of human personality development. It was argued that infants form the internal working models of their selves mainly through non-verbal interactions with primary caregivers (Bowlby, 1969). It was one of Bowlby's key ideas that working models of self (and others) are stored in the form of mental representations. The internal working models were thought to be not necessarily accessible to consciousness or introspection, as they become habitual and operate in an automatic fashion (Bretherton & Munholland, 1999). According to recent models of attachment organization anxiety and avoidance can be identified as the two basic dimensions underlying adult attachment (Fraley & Shaver, 2000).

Attachment-related anxiety refers to the extent to which individuals are vigilant to attachment-related cues. They have fears of being abandoned and a desire to be close to partners (Fraley & Shaver, 2000). A long series of frustrating and disappointing interactions with attachment figures erodes reliance on support seeking

and can produce a hyper-activation of the attachment behavioral system leading to anxious or controlling attempts to force partners to pay more attention and provide better care (Mikulincer & Shaver, 2009).

In comparison, attachment-related avoidance relates to tendencies to use avoidant versus proximity-seeking strategies to regulate attachment-related behaviors and thoughts. Avoidant people are unwilling to rely on others and withdraw from close relationships. They appear to deactivate their attachment behavioral system which is associated with a down-regulation of emotions and a low intensity of emotionality (Mikulincer & Shaver, 2003). Attachment security can be defined as the absence of high levels of anxiety and avoidance (Brennan, Clark, & Shaver, 1998). Securely attached individuals have positive models of others, share feelings with others and enjoy intimate relationships (Bartholomew & Shaver, 1998).

Neuroticism is a core dimension of most models of personality structure (Costa & McCrae, 1995; Eysenck, 1967). It is related to emotional instability and is defined as the general tendency to experience negative affective states such as fear, sadness, embarrassment, anger, and guilt. However, despite the important role of neuroticism in personality research, there is no consensus on its definition among experts (Ormel, Riese, & Rosmalen, 2012). Widely used personality questionnaires such as the NEO Personality Inventory – Revised and the NEO Five-Factor Inventory (Costa &

\* Corresponding author at: Department of Psychosomatic Medicine, University of Leipzig, Semmelweisstr. 10, 04103 Leipzig, Germany. Tel.: +49 341 97 18891; fax: +49 341 97 18849.

E-mail address: [thomas.suslow@medizin.uni-leipzig.de](mailto:thomas.suslow@medizin.uni-leipzig.de) (T. Suslow).

McCrae, 1992) assess anxiety, angry hostility, depression, self-consciousness, vulnerability, and impulsiveness in the measurement of neuroticism. According to Widiger (2009) there is most agreement among personality researchers that anxiety-withdrawal, depression-unhappiness, and vulnerability-stress reaction belong to the neuroticism domain.

The existing literature on the relation between attachment anxiety and the “Big Five” personality traits suggests that attachment-related anxiety is consistently associated with neuroticism. In more than 30 studies significant correlations between attachment anxiety and neuroticism have been found (see Mikulincer & Shaver, 2007, for an overview). In contrast, for attachment avoidance less significant correlations with neuroticism were observed. Moreover, the correlations between attachment anxiety and neuroticism were generally higher (on average about  $r = .40$ ) whereas the correlations between avoidance and neuroticism were on average only around  $r = .20$ . Research on the relation between attachment anxiety and the “Big Five” personality traits shows also that attachment anxiety is most strongly associated with neuroticism compared to other personality dimensions (e.g., Picardi, Caroppo, Toni, Bitetti, & Di Maria, 2005).

According to Back, Schmukle, and Egloff (2009) self-reported personality traits can be conceptualized as reflecting differences in propositional or conscious representations of the self (e.g., “I get stressed out easily”) that result from the typical functioning of reflective processes in situations that provoke meaningful differences in how people act. In the case of neuroticism, these situations can be described as stressful situations in which people differentially behave anxiously or do not. Individual differences in propositional representations of the self could be termed the *explicit self-concept of personality* (Back et al., 2009).

In contrast, individual differences in associative representations of the self have been termed the *implicit self-concept of personality* (Asendorpf, Banse, & Mücke, 2002). Associative representations of the self (e.g., “me”–“tense”) are a product of repeated activation of the self, as a concept in an associative network, together with patterns of impulsive behavioral activation and automatic motivational orientations. The implicit self-concept of personality can be measured with indirect tests such as the *Implicit Association Test* (IAT; Greenwald, McGhee, & Schwartz, 1998). It has been shown that implicit and explicit self-concept are only moderately associated (Back et al., 2009) or can even be independent from each other (Steffens & Schulze-König, 2006). It appears that women manifest stronger associations between implicit and explicit measures than men (Egloff & Schmukle, 2004; Pelham et al., 2005). Women might have greater insight into their over-learned affect-related associations about themselves because they are more strongly socialized to be attuned to their feelings and intuitions than men (Pelham et al., 2005).

The IAT is a word sorting task measuring strength of associations between concepts by comparing reaction times. IATs assessing neuroticism were found to predict spontaneous strained or nervous behavior in healthy people above and beyond direct measures (Back et al., 2009; Egloff & Schmukle, 2002; Schnabel, Banse, & Asendorpf, 2006; Steffens & Schulze-König, 2006).

In the past, it has been shown repeatedly that self-reported attachment style is related to spontaneous cognitive or physiological reactions. For example, explicit measures of attachment orientation have been shown to be accurate indicators of physiological arousal during situations of separation (Feeney & Kirkpatrick, 1996) or heightened automatic accessibility of mental representation of attachment figures (Mikulincer, Gillath, & Shaver, 2002). According to Mikulincer and Shaver (2007) self-report measures of attachment style are useful instruments to study implicit aspects of attachment-system functioning.

The aims of the present study were to investigate for the first time the relation between (self-reported) attachment anxiety and

the implicit self-concept of neuroticism and to study the moderating role of gender in this association. Adult attachment dimensions (i.e. anxiety and avoidance) were measured by the *Experiences in Close Relationships* scale (ECR; Brennan et al., 1998). An Implicit Association Test (IAT) was administered to assess participants' implicit self-concept of neuroticism. The NEO-FFI (Costa & McCrae, 1992) was applied to measure the explicit self-concept of neuroticism. Since gender might moderate the association between explicit and implicit measures as pointed out above correlation analyses were calculated separately for men and women. It was hypothesized that women would manifest stronger associations between attachment anxiety and implicitly measured neuroticism compared with men. To formally test the moderator effect of gender we calculated multiple regression analyses. Since depressed mood and intelligence have been shown to be related to neuroticism we decided to measure and control these variables in our research context (e.g., DeYoung, 2011; Hirschfeld et al., 1983).

## 2. Method

### 2.1. Participants

One-hundred and six healthy subjects (57 women) volunteered to participate (the age range was between 18 and 38 years). For all participants, exclusion criteria were a history of neurological or psychiatric disease, current substance abuse or use of any psychotropic medication. All subjects were white and attested to being native speakers of German. Participants were recruited via public notices. Notices with a brief description of the study, the exclusion criteria and a contact telephone number were posted in several locations on the campus of the University of Leipzig such as libraries and canteens. The study was conducted in accordance with the Declaration of Helsinki and was approved by the local University Ethics Committee. More than half of our study participants ( $n = 60$ ) were university students (32 women, 28 men). 2 participants (2 women) were high school students. 10 participants were employees without an academic degree (6 women, 4 men). 5 participants were in vocational education (3 women, 2 men). 23 participants were working academics or academics in further training measures (13 women, 10 men). 4 participants (4 men) were unemployed academics. 2 participants had a graduation but were unemployed and not university students or in vocational training measures (1 woman, 1 man).

### 2.2. Psychometric measures

The *Experiences in Close Relationships* scale (ECR; German version: Neumann, Rohmann, & Bierhoff, 2007) was applied to measure attachment anxiety and attachment avoidance. The ECR consists of 36 items that are rated on a 7-point scale ranging from 1 (*not at all like me*) to 7 (*very much like me*). Eighteen items assess attachment anxiety and 18 items measure attachment avoidance. Cronbach's alphas were relatively high for the anxiety and avoidance scales of the ECR (.85 and .88, respectively). Low scores on both dimensions indicate attachment security.

The NEO Five-Factor Inventory (NEO-FFI; German version: Borkenau & Ostendorf, 1993) was administered as an explicit measure of neuroticism. The NEO-FFI assesses five dimensions of the normal personality, i.e. neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. It presents in total 60 items (12 items per scale) that participants rate on a 5-point Likert scale (from 1 (*strongly disagree*) to 5 (*strongly agree*)). The internal consistency for the neuroticism scale was .88. Depression of participants was assessed with the Beck Depression Inventory (BDI; German version: Hautzinger, Bailer, Worall, & Keller,

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات