The neglected link between adult attachment and schizotypal personality traits

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ABSTRACT

The relationship between adult attachment and schizotypal personality traits in a non-clinical sample was explored. It was predicted that insecure attachment would show a positive association with schizotypy. A total of 161 British adults completed the Schizotypal Personality Questionnaire and the Experience in Close Relationships Scale. Canonical correlation analysis was used as a multivariate technique to explore the nature and directionality of the relationship between the two constructs. Attachment had a strong relationship with schizotypy, both at a bivariate and multivariate level, in the predicted direction. In conjunction with other predisposing factors, insecure attachment might contribute towards the development of schizotypy via specific interactional and cognitive styles, implicit within individuals' internal working models. A study of the relationship between schizotypy and attachment can enhance understanding of the pathways and triggers associated with schizotypal development, and ultimately lead to better ways of diagnosing, preventing, and even treating schizotypal personality disorder.

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1. Introduction

Despite its biopsychosocial origins, it is only relatively recently that attachment theory has been applied to the domain of personality disorders (PDs). Research suggests that attachment provides a diathesis for psychopathology in adulthood (Lyddon & Sherry, 2001; Meyer, Pilkonis, Proietti, Heape, & Egan, 2001; Ponizovsky, Nechamkin, & Rosca, 2007; Shorey & Snyder, 2006; Westen, Nakash, Thomas, & Bradley, 2006; also of interest Brennan & Shaver, 1998). Moreover, the research agenda for the development of the DSM-V, as laid down by the APA taskforce (First et al., 2002), explicitly states the immediate need for empirical evidence on the role relational problems – of which attachment is arguably a fundamental component – play in the aetiology, comorbidity, diagnosis, and treatment of mental disorders. This paper specifically explores the relationship between adult attachment and schizotypal personality traits in a non-clinical sample.

Schizotypal personality disorder (SPD) is a disorder of cluster A (DSM-IV-TR; American Psychiatric Association, 2000), characterised by social and interpersonal deficits, cognitive-perceptual distortions, and eccentricities of behaviour. These characteristics have also been organised into positive and negative schizotypy (Dimm, Harris, Aycicegi, Greene, & Andover, 2002; Millon, Grossman, Millon, Meagher, & Ramnath, 2004). Traits associated with positive schizotypy are primarily linked to eccentric thought, behaviour, and odd speech patterns, while negative schizotypy comprises constricted social traits. When schizotypal traits are present in an individual, but are non-dysfunctional nor prominent enough to manifest psychopathologically, they are grouped under the terms schizotypal personality traits or (healthy) schizotypy (Claridge & Davis, 2003). That said, a person with a schizotypal personality is highly vulnerable to developing SPD or schizophrenia (Cadenhead & Braff, 2002; Gruzelier, 2003; Rossi & Daneluzzo, 2002; Vollema, Sitskoorn, Appels, & Kahn, 2002).

Attachment theory proposes a universal need to form close affectional bonds and that attachment behaviour functions as a homeostatic means of regulating behaviour during episodes of distress (Bowlby, 1980). It is proposed that early interaction experiences lead to formation of internal working models (IWM) – change-resistant cognitive models which comprise representations of the self and others (Main, Kaplan, & Cassidy, 1985). In adults, attachment styles can be construed as individual differences on two dimensions: (a) the anxiety dimension, which indicates degrees of need for approval and the fear of rejection and abandonment and (b) the avoidance dimension, which is the tendency to avoid intimacy and discomfort with closeness and dependence on others (Brennan, Clark, & Shaver, 1998). As these attachment dimensions are orthogonal, individuals may score highly on both. Such individuals are likely to be suspicious of others, have high levels of social anxiety, be socially isolated, and be reluctant to seek help when distressed. Arguably then, a robust theory of interpersonal functioning and emotion regulations can provide an empirically plausible conceptual framework for PDs. Indeed, the link between attachment and PDs has been demonstrated in psychiatric samples (Berry, Barowclough, & Wearden, 2008; Fossati et al.,

2003; Westen et al., 2006), and specific PDs, including borderline (De Zulueta, 1999), dependent (Livesley, Schroeder, & Jackson, 1990), and avoidant (Sheldon & West, 1990).

Despite these findings, empirical evidence that directly and exclusively assesses the nature of the association between attachment and schizotypy is practically nonexistent. Three studies exist in which Berry, Wearden, Barrowclough, and Liversidge (2006) and Wilson and Costanzo (1996) respectively explored, among other elements, the relationship of the above constructs, while a recent study by Meins, Jones, Fernyhough, Hurndall, and Koronis (2008) is the only one that exclusively addressed this link. The results of these studies indicate a moderate association between the constructs in non-clinical samples, with secure attachment being linked to low positive and negative schizotypy, while the inverse relationship was found to an extent for both avoidant and anxious attachments. In addition, the causal direction of the above associations was unclear, thus both constructs could, empirically at least, act as either predictors or outcomes of each other. In fact, a recent study (Gillath, Shaver, Baek, & Chun, 2008) claims to have identified unique genetic markers of attachment; should this claim be verified, it casts further doubt on the causal placement of the subject constructs. Furthermore, the above studies are limited by the use of either (a) restricted sample types, (b) somewhat dated or limited self-report measures of adult attachment, or (c) measures of (aspects of) schizotypy that are not explicitly based on the DSM classification.

The aim of the present study was to explore further the relationship between adult attachment and schizotypal personality traits. We hypothesised that (a) attachment anxiety would have a positive relation to, at least aspects of, both negative and positive schizotypy (b) attachment avoidance would primarily have a positive relation to negative schizotypy.

2. Methods

2.1. Measures

2.1.1. Schizotypal Personality Questionnaire (SPQ)

A 74-item self-report measure (no/yes responses) of symptoms of schizotypy (Raine, 1991). The SPQ was developed as a screening instrument to be used in the general population to identify individuals with schizotypal tendencies and to assess differences across individuals on schizotypal personality. It comprises the nine DSM criterion-based, first-order factors that subsequently were found to load onto three oblique, second-order dimensions (Fossati et al., 2003; Raine et al., 1994). The first second-order dimension identifies the cognitive-perceptual deficits, characterised by distorted ideas of reference, magical thinking, unusual perceptual experiences, and paranoid ideation. The second dimension describes the interpersonal deficits, characterised by social anxiety, lack of close friends, inappropriate or constricted affect, and, as with the previous factor, paranoid ideation. Finally, the third dimension is termed disorganized and it involves elements of odd or eccentric behaviour and speech. The cognitive-perceptual and disorganised symptoms comprise the positive schizotypy, while the interpersonal ones (excluding paranoid ideation) form the negative schizotypy. Reported alphas for the nine first-order factors range from .63 to .81 (total alpha of SPQ .90). Higher scores indicate higher schizotypal tendencies.

2.1.2. Experience in Close Relationships (ECR)

A forced-choice (7-point Likert-like scale), 36-short statement, self-report measure (Brennan et al., 1998) that assesses adult attachment on the two higher-order orthogonal attachment dimensions of avoidance and anxiety. Normative alphas are .94

(avoidance) and .91 (anxiety). Higher scores suggest a more insecure attachment.

2.1.3. Participants and procedure

A total of 161 British non-clinical adults participated in the study, who were recruited through a purposive sampling. Of the sample, 68.3% ($n = 110$) were females, while 28.7% ($n = 45$) were university students (four participants did not reveal their student status). The age-range was 17–82 years (mean = 46.9, $SD = 18.9$).

The study was part of a project that assessed the relation between religiosity and schizotypy (see Tiliopoulos & Crawford, 2007). Questionnaires were posted to the participants or given indirectly to them through intermediators. Participants were recruited through university volunteer databases and Christian societies. A total of 200 questionnaires were handed out of which 163 (81.5% response rate) were returned. Two of the returned questionnaires were discarded as invalid. Data were analysed through SPSS (v11.5) and NCSS (v2000).

3. Results

3.1. Reliabilities and external indicators

The scales possessed internal consistency reliabilities that were very similar to, and in most instances better than, their normative ones (see Table 1).

Schizotypal traits had low negative correlations with age (Pearson's r ranged from .07 for "no close friends" to −.26 for the "disorganised" dimension). On average, females reported significantly lower levels of constricted affect (mean = 1.27, $SD = 1.64$) and eccentric behaviour (mean = .89, $SD = 1.67$) than males (for constricted affect: mean = 1.96, $SD = 2.29$; for eccentric behaviour: mean = 1.92, $SD = 2.18$); for constricted affect: $F(1, 157) = 4.75$, $p < .08$, $\eta^2 = .02$, power.05 = .44; for eccentric behaviour: $F(1, 159) = 10.89$, $p < .001$, $\eta^2 = .06$, power.05 = .82. Interestingly, students had significantly higher scores than non-students on a number of schizotypal traits (see Table 2). Finally, our sample exhibited lower levels than the norm on at least the second order schizotypal dimensions.

Attachment had low correlations with age ($r_{avoidance} = .10$, $r_{anxiety} = −.27$). No statistically significant differences in attachment styles were observed between females and males, while students (mean = 75.85, $SD = 21.60$) had a significantly more anxious attachment than non-students (mean = 61.01, $SD = 18.68$), $F(1, 139) = 16.74$, $p < .001$, $\eta^2 = .11$, power.05 = .98. Finally, no gender by student status (controlling for age) statistically significant interactions were observed for either the attachment or the schizotypy factors.

3.2. Schizotypy and attachment

As predicted, attachment correlated positively with schizotypy, indicating that insecure attachment was associated with higher levels of schizotypal traits (see Table 3). Mainly this relationship was formed by the attachment-interpersonal traits pairs. Furthermore, the anxiety dimension correlated with both positive and negative symptomatology, whilst the avoidant dimension correlated only with the latter.

To examine the relationship between the two constructs at the multivariate level a canonical correlation analysis was performed. Given sample size considerations, only the second-order schizotypal dimensions were used against the two attachment styles, controlling for gender effects. For this configuration, the maximum number of possible canonical variate pairs was two (see Stevens, 2002, p. 473). With both canonical pairs included, *Wilks' Lambda* (6, 254) = 0.71, $p < .0001$, while with the first canonical pair