Adult attachment style and social anhedonia in healthy volunteers

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ABSTRACT

Several studies that have explored associations between attachment measures and interpersonal dispositions have found that people with avoidant attachment consistently express a preference for being alone rather than affiliating with others. These findings suggest that the lack of sociability of avoidant individuals reflects high levels of social anhedonia. We tested such a hypothesis by administering the Attachment Style Questionnaire (ASQ) and the social anhedonia subscale of the Snaith–Hamilton Pleasure Scale (SHAPS) to 163 healthy volunteers. Social anhedonia was not related to gender, age or current mood state, as measured by the Profile of Mood States (POMS). In a stepwise regression model, the confidence and the discomfort with closeness scales of the ASQ emerged as significant predictors of the SHAPS social score, indicating that higher levels of social anhedonia were associated with avoidant attachment but not with anxious attachment. These findings raise interesting questions about the causal link between avoidant attachment and social anhedonia. It is possible that the construct of avoidant attachment as measured by self-report measures includes a heterogeneous group of individuals and that some have a basic deficit in the capacity to experience social reward rather than a defensive deactivation of intimacy needs.

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1. Introduction

Anhedonia (i.e., a diminished capacity to experience pleasure) is considered a major symptom of different psychiatric disorders. Since the writings of Bleuler and Kraepelin, anhedonia has figured in clinical descriptions of the core deficits of schizophrenia and it is still listed by many authors among the negative symptoms of the schizophrenia-spectrum disorders (Pelizza & Ferrari, 2009). Anhedonia also appears to be a particularly central feature of major depression, especially of the melancholic subtype (Stein, 2008).

Social anhedonia, defined as a reduced capacity to experience pleasure and reward from social affiliation, not only has clinical implications, but also appears to be an identifiable personality trait that characterizes many people without diagnosable psychiatric disorders (Brown, Silvia, Myin-Germeys, & Kwapil, 2007; Harvey, Pruessner, Czechowska, & Lepage, 2007). The origin of individual differences in the capacity to experience social reward is likely to involve a complex interplay of genetic and environmental variables, including genetic variation, early experience and current situational factors.

A personality variable that may be related to individual differences in social hedonic capacity is adult attachment style. The original focus of attachment theorists was the mother–child relationship, but in recent years, there has been a considerable increase in both clinical and research interest in the field of adult attachment (Mikulincer & Shaver, 2007). Adult attachment theory is an extension of Bowlby and Ainsworth's attachment theory, designed to explain individual differences in cognitions, feelings, and behaviors that occur in the context of adolescent and adult close relationships. There are two dimensions of insecurity underlying all self-report measures of adult attachment. The first dimension, attachment-related anxiety, is concerned with a strong desire for closeness and protection, intense worries about abandonment, and use of hyperactivating strategies to deal with attachment-related distress. The second dimension, attachment-related avoidance, is concerned with discomfort with closeness, preference for emotional distance and self-reliance, and use of deactivating strategies to deal with attachment-related distress.

Attachment style is associated with various aspects of interpersonal regulation (i.e., the processes that regulate a person's interactions with others) and influences people's feelings, thoughts, attitudes, and behaviors in social interactions. Several studies that have explored associations between attachment measures and interpersonal dispositions have described people with avoidant attachment as somewhat introverted, cold, and emotionally inexpressive (Cyranowski et al., 2002; Duggan & Brennan, 1994). Avoidant individuals consistently express a preference for being alone rather than affiliating with others (Shaver et al., 1996). These findings suggest that the lack of sociability typical of avoidant people reflects high levels of social anhedonia. Yet, to our knowledge,

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no study has directly tested such a hypothesis by measuring simultaneously adult attachment style and social anhedonia. In this study, we measured individual differences in social hedonic capacity and analyzed their correlations with a dimensional measure of adult attachment style in a relatively large sample of healthy volunteers. We hypothesized that avoidant attachment, but not anxious attachment, was positively correlated with higher levels of social anhedonia.

Studying the relationship between attachment and social anhedonia is important to clarify the developmental pathways leading to and originating from social withdrawal (Rubin, Coplan, & Bowker, 2009). Since a deficit in the experience of social pleasure is a major risk factor for different psychiatric disorders (Watson & Naragon-Gainey, in press), the identification of developmental factors associated with social anhedonia may enable high risk populations to be delineated.

2. Method

2.1. Participants

Data reported here were collected as a part of a larger study aimed at investigating the personality correlates of adult attachment styles. One hundred and sixty three healthy volunteers (mean age: 29.3 ± 9.3 years; range: 19–67 years) were recruited among students in the medical school, paramedic staff members, and conscripts of the Italian army. Participants with personality disorders and/or psychiatric disorders were screened out of the protocol. Exclusion from the sample was based on the presence of a DSM-IV diagnosis, not on the scores of psychometric instruments administered to participants. Diagnostic assessment was made by experienced clinical psychiatrists using the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-CV) (First, Gibbon, Spitzer, & Williams, 1997) and the Schedule for Interviewing DSM-IV Personality Disorders-IV (SIDP-IV) (Pfohl, Blum, & Zimmerman, 1997). The University Intramural Ethical Committee approved all procedures and protocols, and written informed consent was obtained before enrollment. All the participants were blind to the aims of the study.

2.2. Psychometric assessment

The social anhedonia subscale of the Snaith–Hamilton Pleasure Scale (SHAPS; Snaith et al., 1995) was used to measure the capacity to experience pleasure in social situations. The SHAPS is a 14-item questionnaire instructing participants to agree or disagree with statements of hedonic response in pleasurable situations. Each of the items has a set of four response categories ranging from 1 (definitely agree) to 4 (definitely disagree). A higher total score indicates higher levels of anhedonia. This scale has shown adequate overall psychometric properties in clinical and student samples (Franken, Rassin, & Muris, 2007; Gilbert, Allan, Brough, Melley, & Miles, 2002). The SHAPS covers four domains of hedonic experience: interest/pastimes, social interaction, sensory experience, and food/drink. The social anhedonia subscale (SHAPS–SOC) includes statements such as "I would enjoy being with family or close friends" and "I would enjoy seeing other people's smiling faces." Participants were instructed to compile the SHAPS to describe their habitual hedonic responses, not their experiences in the last few days.

The Attachment Style Questionnaire (ASQ; Feeney, Noller, & Hanrahan, 1994) was used to measure adult attachment style. The ASQ is a 40-item self-report questionnaire with individual items being scored on a six-point scale from 1 (totally disagree) to 6 (totally agree). The ASQ refers to all close relationships with

peers (whether romantic or not) and includes five subscales derived from principal-components analysis: confidence (in self and others), discomfort with closeness, Need for Approval, Preoccupation with Relationships, and Relationships as Secondary (to achievement). The five scales of the ASQ have been shown to have adequate internal consistency, with Cronbach's α coefficients ranging from 0.76 to 0.84 and 10-week retest reliability coefficients ranging from 0.67 to 0.78 (Feeney et al., 1994). The confidence subscale is a general measure of the security of attachment. The Need for Approval and the Preoccupation with Relationships subscales assess the anxiety (about abandonment) dimension of the attachment style, whereas the discomfort with closeness and the Relationships as Secondary subscales pertain primarily to the avoidance (of intimacy) dimension of the attachment style. Individuals scoring highly on attachment-related anxiety endorse statements such as "I find that others are reluctant to get as close as I would like" and "It's important to me that others like me". Individuals scoring highly on attachment-related avoidance endorse statements such as "My relationships with others are generally superficial" and "Achieving things is more important than building relationships".

To control for the confounding effect of current mood on the assessment of attachment and social anhedonia, participants were asked to compile the Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1992). They were asked to carefully read each of 65 items, then respond to a five-point Likert scale ranging from 1 (not at all) to 5 (extremely) based on how they were feeling the day they completed the inventory. The total mood disturbance score (POMS–TMD) was calculated by summation of the five negative affect scales (fatigue, depression, tension, anger, and confusion) and subtraction of the vigor scale. A higher POMS–TMD corresponds to higher levels of mood disturbance.

2.3. Statistical analysis

Comparisons between men and women were performed using t test. Pearson coefficients of correlation (r) were used to calculate bivariate correlations between variables. Stepwise regression analysis was used to identify the significant predictors of the SHAPS–SOC score. Collinearity diagnostics based on eigenvalues of the scaled and uncentered cross-products matrix, variation inflation factors (VIF) and tolerances for individual variables were used to exclude multicollinearity among the independent variables. Analysis was performed on a personal computer using SPSS for Windows, version 17.0 (SPSS, Inc., Chicago, Ill).

3. Results

Preliminary analyses aimed at ascertaining whether social anhedonia was related to gender, age or mood state. None of these variables were related to the SHAPS–SOC score, as shown by the non-significant difference between men and women ($t = 0.73$, df = 161, NS) and by the non-significant correlations with age ($r = 0.08$, NS) and POMS–TMD score ($r = 0.10$, NS). The results did not change when the sample was stratified by gender (Table 1). Thus, we could exclude that associations between social anhedonia and adult attachment styles were due to the confounding effects of gender, age or mood state.

We found significant bivariate correlations between the SHAPS–SOC score and two scales of the ASQ (Confidence and Discomfort with Closeness) (Table 1). Higher levels of attachment insecurity corresponded to higher levels of social anhedonia. To clarify which dimensions of insecure attachment were the best predictors of social anhedonia, we next fit a stepwise regression model with the SHAPS–SOC score as the dependent variable and the five ASQ