

# Stability and relationships between trait or state anhedonia and schizophrenic symptoms in schizophrenia: A 13-year follow-up study

Gwenolé Loas<sup>a,\*</sup>, Jean Louis Monestes<sup>a</sup>, Audrey Ingelaere<sup>a</sup>,  
Carole Noisette<sup>a</sup>, Ellen S. Herbener<sup>b</sup>

<sup>a</sup> *Service Universitaire de Psychiatrie, CNRS-UMR 8160 and CHU d'Amiens, 80044 Amiens cedex 01, France*

<sup>b</sup> *Center for Cognitive Medicine, Department of Psychiatry, University of Illinois at Chicago,  
912 S. Wood St (M/C 913), Chicago IL, 60612, United States*

Received 18 October 2007; received in revised form 19 December 2007; accepted 28 February 2008

---

## Abstract

The aim of the present study was to explore the stability of anhedonia and its relationships with schizophrenic symptoms across a 13-year study period. We tested the hypothesis that trait anhedonia, rated by the Physical Anhedonia Scale (PAS), was stable and independent of schizophrenic symptoms across this period, while measures of state anhedonia were not. Sixty schizophrenic subjects were evaluated at two time points, at hospital admission or during an ambulatory psychiatric consultation and 13 years later. Trait anhedonia was assessed using the Chapman Physical Anhedonia Scale, while state anhedonia was assessed with a subscale extracted from the Beck Depression Inventory. The Positive and Negative Syndrome Scale (PANSS) was used to rate schizophrenic symptomatology. Unlike trait anhedonia, state anhedonia decreased significantly over time. Based on results from multiple regressions, negative and depressive dimensions were significant predictors of state anhedonia. Trait anhedonia was not associated with negative symptoms, but was associated with severity of disorganization symptoms at baseline and with our state measure of anhedonia at follow-up. In the current study, state and trait anhedonia were correlated, but depressive symptoms in general were not associated with physical anhedonia. The results indicated that trait anhedonia, in contrast to state anhedonia, had absolute stability, was independent of the negative dimension, as measured by the PANSS, of schizophrenic symptomatology and correlated with specific aspects of depressive anhedonia.

© 2008 Elsevier Ireland Ltd. All rights reserved.

*Keywords:* Anhedonia; Schizophrenia; Prospective study; Negative symptoms; Depression

---

## 1. Introduction

Anhedonia, the decreased ability to feel pleasure, has been hypothesized to be a core feature of schizophrenia that may contribute to the liability to develop the disorder (Meehl, 1962, 1990). Anhedonia has been defined in a number of different ways in studies of mentally ill

---

\* Corresponding author. Service Universitaire de Psychiatrie, Hôpital Pinel, 80044 Amiens Cedex 01, France. Tel.: +33 3 22 53 46 44; fax: +33 3 22 95 41 15.

E-mail address: [Loas.Gwenole@chu-amiens.fr](mailto:Loas.Gwenole@chu-amiens.fr) (G. Loas).

populations. These different definitions and related criteria cannot be used interchangeably as they measure different conceptualizations of anhedonia; the differences in definition have not always been clearly taken into account in the literature. Anhedonia scales have been developed to evaluate loss of previous levels of enjoyment (typical of a depressive state), trait experience of absence of pleasure (as assessed with the self-report scales of Chapman et al.), or decrease in pursuit of potentially pleasurable activities as assessed by an interviewer (e.g. Scale for the Assessment of Negative Symptoms, SANS). Moreover, instruments vary in the time frame assessed. For example, the SANS typically rates the last 1–2 weeks, while the Schedule for the Deficit Syndrome (SDS) seeks to identify enduring characteristics over at least the past year. Another difference is the domain assessed by the different instruments. Some measures focus on enjoyment of social activities, while others, such as the Chapman Physical Anhedonia Scale used in the current report, focus specifically on sensual pleasures (such as smells, tastes, and sounds).

The various operational definitions of anhedonia have contributed to a somewhat variable or paradoxical set of findings, raising questions about the precise nature of hedonic deficit in schizophrenia and in subjects at risk for the disorder. Studies of anhedonia that used the Physical (PAS) or Social (SAS) Anhedonia Scales of Chapman et al. (1976) have generally suggested that anhedonia is a trait characteristic. In a 10-year follow-up study of college students, Chapman et al. (1994) and Kwapil et al. (1997) found that social anhedonia, in association with perceptual aberration and magical ideation, was related to increased risk of psychosis as well as dimensional scores of schizotypal personality at follow-up. Two additional long-term follow-up studies (10 and 5 years, respectively) in college students also supported the predictive validity of the SAS (Kwapil, 1998; Gooding et al., 2005). A recent study in a community sample reported that social anhedonic subjects compared with controls displayed significantly more behavioural signs characteristic of schizoid and schizotypal personality disorders (Collins et al., 2005). Moreover in two studies of high-risk subjects (offspring of individuals with schizophrenia), physical anhedonia levels in adolescence were associated with childhood attentional dysfunction, social isolation and greater probability of later non-paranoid psychosis or social dysfunction (Erlenmeyer-Kimling et al., 1993; Freedman et al., 1998).

### *1.1. Relationship between trait anhedonia and schizophrenic symptoms*

Four studies in chronic or acute schizophrenic patients have found that self-reported physical anhedonia was

unrelated to negative symptoms as measured by interviewer ratings on the Scale for the Assessment of Negative Symptoms (SANS), the Brief Psychiatric Rating Scale (BPRS), or the Positive and Negative Syndrome Scale (PANSS) (Berenbaum and Oltmanns, 1992; Blanchard et al., 1994; Loas et al., 1996a, 2000). Studies of the relationship between social anhedonia and negative symptoms have been quite inconsistent (Blanchard et al., 1994; Loas et al., 1996a; Kollias et al., 2000). As noted earlier, these negative symptom scales are typically completed by interviewers, vary in their actual focus on anhedonia in contrast to other negative symptoms, and tend to measure anhedonia based on observed engagement in the social environment rather than on internal state. When negative symptom assessment involves actual discussion of experiences of pleasure with patients, such as in interviews to assess deficit negative symptoms (Carpenter et al., 1988), stronger relationships between deficit negative symptoms and scores on the PAS or SAS have been found (Kirkpatrick and Buchanan, 1990; Loas et al., 1996b). Past studies also indicate that trait anhedonia self-report scores are unrelated to depressive symptoms as measured by the BPRS or the Beck Depression Inventory (BDI) (Blanchard et al., 1994, 2001; Loas et al., 2000). In sum, these data support the distinction between anhedonia as assessed by decreased engagement in social activities (which contributes to measures of depressive and negative symptom anhedonia) and self-reported experiences of gaining pleasure from engagement with the social and/or physical environment.

### *1.2. Assessment of stability of anhedonia*

Several longitudinal studies, to date, have explored the stability of the Chapman anhedonia scale over time, by assessing cross-time correlations, or by assessing whether changes in severity of symptoms influence anhedonia scores. Blanchard et al. (1998) reported satisfactory test–retest reliabilities on the PAS and SAS over a 3-month period in 37 schizophrenic outpatients and 15 controls. Further, in a 1-year follow-up study, Blanchard et al. (2001) found significant test–retest correlations for SAS scores between the two evaluations (baseline and 1 year later) in three different samples (23 schizophrenic subjects, 13 patients with depression, and 28 controls).

Only one study has explored the long-term stability of anhedonia assessed by the Chapman scale over multiple years. Herbener and Harrow (2002), using prospectively collected longitudinal data covering a 10-year span for 127 schizophrenic or schizoaffective patients, found that

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