



## Short Communication

## Biological stress reactivity as an index of the two polarities of the experience model



Jaime R. Silva<sup>a,b,\*</sup>, Anastassia Vivanco-Carlevari<sup>a</sup>, Mauricio Barrientos<sup>c,d</sup>, Claudio Martínez<sup>e</sup>, Luis A. Salazar<sup>f</sup>, Mariane Krause<sup>g</sup>

<sup>a</sup> Centro de Apego y Regulación Emocional (CARE), Universidad del Desarrollo, Santiago, Chile

<sup>b</sup> Clínica Alemana de Santiago, Santiago, Chile

<sup>c</sup> Facultad de Medicina, Escuela de Psicología, Universidad Austral de Chile, Valdivia, Chile

<sup>d</sup> Center for Interdisciplinary Studies on the Nervous system (CISNe), Universidad Austral de Chile, Valdivia, Chile

<sup>e</sup> Facultad de Psicología, Universidad Diego Portales, Santiago, Chile

<sup>f</sup> Facultad de Medicina, Universidad de La Frontera, Temuco, Chile

<sup>g</sup> Escuela de Psicología, Pontificia Universidad Católica de Chile, Santiago, Chile

## ARTICLE INFO

## Keywords:

Two-polarities of experience model  
Interpersonal stress  
Biological stress reactivity  
TSST

## ABSTRACT

The two-polarities model of personality argues that experience is organized around two axes: *interpersonal relatedness* and *self-definition*. Differential emphasis on one of these poles defines adaptive and pathological experiences, generating anaclitic or introjective tendencies. The anaclitic pattern, on one hand, has been conceptually related with an exaggerated emphasis on interpersonal relatedness. On the other hand, the introjective pattern has been connected to high levels of self-criticism. The aim of this study was to investigate the psychophysiological basis for this relationship. Specifically, we hypothesized that the anaclitic individual should have a higher biological reactivity to stress (BRS), measured by the cortisol concentration in saliva, in an interpersonal stress induction protocol (Trier Social Stress Test). Contrary to what was expected, the results indicated that introjective participants presented a higher BSR than the anaclitic group. Interestingly, in contrast to their higher BSR, the introjective group reported a diminished subjective stress in relation to the average. In the anaclitic group, a tendency that goes in the opposite direction was found. Theoretical implications of these findings were discussed.

## 1. Introduction

In recent years, the two polarities of the personality model have developed a significant empirical and theoretical corpus (Luyten et al., 2013). This approach, originally proposed by Blatt (1974) has identified that human personality development involves the harmonious and balanced interaction of two polarities of experience (onward: POE): *interpersonal relatedness* and *self-definition* (Blatt, 1974; Blatt and Luyten, 2009). These two elemental aspects that structure experience are related to building significant and protective interpersonal relations and developing an integrated and differentiated concept of identity (Luyten and Blatt, 2013). Consequently, personality organization is conformed in relation to a dialectic interaction of these two poles, resulting in different character styles. On one side, *anaclitic* character is related with interpersonal relatedness, describing a collectively oriented style, with

an emphasis on intimacy, love, and intersubjectivity. On the other hand, *introjective* character is associated with self-definition, which implies an autonomous style, giving value to agency, achievement, and initiative (Blatt, 2008).

The two-polarities model has developed substantial clinical applications, where psychopathology has been conceptualized as a maladaptive emphasis toward one of the two poles in relation to the other (Blatt and Luyten, 2009). Therefore, the unbalance on one of these polarities of experience has been considered a diathesis that may evolve in affective and cognitive disorders. In this context, an important application field has been related to studies on depression, where an anaclitic and an introjective dimension of this clinical condition has been differentiated.<sup>1</sup>

It has been widely accepted that a relevant element in personality configuration and its deviated pathways is stress sensitivity and

\* Corresponding author at: Centro de Apego y Regulación Emocional (CARE), Universidad del Desarrollo, Av. Las Condes 12.461, Las Condes, Santiago, Chile.

E-mail address: [jaimesilva@udd.cl](mailto:jaimesilva@udd.cl) (J.R. Silva).

<sup>1</sup> We thank to an anonymous reviewer, who had noticed the significance of maintaining a consistency on the manuscript, focusing in the polarities of experience as a personality tendency rather than in the depressive experience

**Table 1**

Pairwise comparisons between POE groups for each index of interest: Negative Affect (NA), Positive Affect (PA), Depression (BDI), and Cortisol concentration (C2). Darkened cells denote mean and standard deviation (SD) of each index of interest. The other cells represent mean difference and significance for each post-hoc comparison.

	N	Age (SD)	Normal				Introjective				Anaclitic				NA
			NA	PA	BDI	C2	NA	PA	BDI	C2	NA	PA	BDI	C2	
Normal	30	20.86 (1.50)	11.75 (3.88)	30.79 (3.96)	3.58 (3.12)	7.11 (2.38)	ns	ns	5.93***	1.82*	ns	ns	ns	ns	5.03**
Introjective	21	20.67 (1.88)					14.66 (6.16)	28.33 (5.18)	9.52 (4.96)	8.93 (2.45)	ns	ns	ns	ns	ns
Anaclitic	19	20.79 (1.31)									13.05 (4.91)	30.05 (4.90)	6.57 (3.84)	7.67 (2.64)	ns
Mixed-AI	31	20.42 (1.54)													16.79 (5.26)

NA: Negative Affect.  
 PA: Positive Affect.  
 BDI: Depression scores.  
 C2: Cortisol increase.

n.s.  $p > 0.05$ .

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

\*\*\*  $p < 0.001$ .

interpersonal stress reactivity (Bale, 2006). Congruently, according to behavioral studies, some authors have suggested that those individuals with an anaclitic character, based on its interpersonal relatedness orientation, should have a higher response to these forms of stress (Reis and Grenyer, 2002; Blatt, 2008). Although, despite the robustness of these findings, as far as we know, there are no experimental studies aimed to explore the physiological correlate of this relationship. Therefore, this study is focused on exploring the biological stress reactivity (onward: BSR) of the POE characters to interpersonal-induced stress. Specifically, our hypothesis stands that under interpersonal stress conditions, anaclitic individuals will show a greater biological stress reaction than their introjective counterparts.

## 2. Material and methods

### 2.1. Participants

The study consisted of 101 students (mean age: 20.67, SD: 1.55, 50 women). Each participant completed two experimental sessions and received USD \$20. Informed consent and the guidelines of the Code of Ethics of the World Medical Association were completely fulfilled. The Ethics Committee of Universidad del Desarrollo approved the study. As an important exclusion criterion, we did not select participants categorized with self-reported depression. Results from the Beck Depression Inventory (BDI, Beck et al., 1961) evidenced a normal or minimal self-reported depressive state for all the participants in the study (mean BDI score: 6.97, SD: 4.78).<sup>2</sup>

### 2.2. Instruments and procedures

The *Depressive Experiences Questionnaire* (DEQ, Blatt et al., 1976) was administered to determine the POE categories. Although this questionnaire refers to depression, it has been frequently used in the nonclinical population to classify *character styles* based on the two-polarities model (Zuroff et al., 1990; Blatt, 1990). From the DEQ, two scores were obtained: *dependency* and *self-criticism* factors. According to

<sup>2</sup> Experimental sessions were scheduled from 10:00 a.m. to 12:00 p.m. Exclusion criteria were: a body mass index < 18 or > 30 kg/m<sup>2</sup>; receiving medical treatment known to affect the HPA axis; a history of psychiatric or neurological disorders; abnormal vision; smoking; pregnant or lactating women, and women taking oral contraceptives. Participants were asked not to eat or brush their teeth one hour before the session, and not to drink alcohol or play sports the day before.

the interaction between these two factors, four categories can be defined (normal, introjective, anaclitic, and mixed). To evaluate the subjective effect of the protocol, the *State-Trait Anxiety Inventory* in its state version (STAI-S, Spielberger et al., 1970) was administered. To explore the basic dimensions of emotion, participants completed the *Positive and Negative Affect Schedule* (PANAS, Watson et al., 1998).

The *Trier Social Stress Test* (TSST, Allen et al., 2014) was implemented to assess interpersonal stress sensitivity. The TSST protocol consists of a five-minute public speaking task and a subsequent five-minute mental arithmetic task in front of an expert panel. During the TSST implementation, seven cortisol measurements were taken from each participant (Fig. S1, supplementary material). The cortisol level at C2 (10 m after stress induction) was taken as indicative of participants' reactivity to stress. STAI-S was applied before the anticipation phase and again after the exposure phase. This questionnaire has been frequently used in experimental protocols relating TSST as a self-reported instrument of perceived stress (Von Dawans et al., 2011; Birkett, 2011).

## 3. Results

### 3.1. POE categorization

To determine the POE categories, the DEQ was analyzed by extracting dependency and self-criticism factors. The categorization boundaries implemented to determine the POE groups followed the standard literature criterion (Viglione et al., 1990). We considered the mean of each factor, generating four quadrants: normal, introjective, anaclitic, and mixed groups (Fig. S2A denotes this categorization). This result showed that the POE configurations were similarly distributed across groups (normal: 30, introjective: 21, anaclitic: 19, and mixed: 31 participants). In addition, the frequency observed in each group revealed significant differences among them (dependency:  $F(3,99) = 52.78, p < 0.001, \eta^2 = 0.62$ ; anaclitic:  $M = -0.36, SE = 0.12$ ; introjective:  $M = -1.48, SE = 0.08$ ; normal:  $M = -1.53, SE = 0.10$ ; mixed:  $M = -0.21, SE = 0.08$ ; self-criticism:  $F(3,99) = 81.54, p < 0.001, \eta^2 = 0.71$ ; anaclitic:  $M = -0.95, SE = 0.13$ ; introjective:  $M = 0.63, SE = 0.11$ ; normal:  $M = -1.07, SE = 0.08$ ; mixed:  $M = 0.40, SE = 0.07$ , see Figs. S2B and C). Table 1 shows differences in affective parameters yielded by this classification.

### 3.2. Effect of TSST in cortisol response

Considering the cortisol curves induced by the protocol, it was

Download English Version:

<https://daneshyari.com/en/article/4934206>

Download Persian Version:

<https://daneshyari.com/article/4934206>

[Daneshyari.com](https://daneshyari.com)