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Are there subtypes of alexithymia?

R. Michael Bagby [a,b,*], Lena C. Quilty [a,b], Graeme J. Taylor [a,c], Hans J. Grabe [d], Olivier Luminet [e], Ramiro Verissimo [f], Iris De Grootte [g], Stijn Vanheule [g]

[a] Department of Psychiatry, University of Toronto, 250 College Street, Toronto, Ontario, Canada M5T 1R8
[b] Centre for Addiction and Mental Health, 250 College Street, Toronto, Ontario, Canada M5T 1R8
[c] Department of Psychiatry, Mount Sinai Hospital, 600 University Avenue, Toronto, Ontario, Canada M5T 1X5
[d] Department of Psychiatry and Psychotherapy, University of Greifswald, Germany
[e] Department of Psychology, Universite catholique de Louvain, Belgium
[f] Department of Medical Psychology/UP Faculty of Medicine, Portugal
[g] Department of Psychoanalysis and Clinical Consulting Psychology, Ghent University, Belgium

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ABSTRACT

The aim of this study was to investigate the viability of Type I and Type II alexithymia proposed by Vorst and Bermond (2001) and defined by Affective and Cognitive higher-order factors as measured by the Bermond–Vorst Alexithymia Questionnaire (BVAQ). Using data from a large international database, confirmatory factor and cluster analyses were conducted with a pooled sample ($N = 1696$), as well as with five samples of subjects that composed the pooled sample, in which subjects had completed different language versions of the BVAQ. A correlated five-factor model produced the best fit in the pooled sample and in each of the five samples; this model was also a better fit than the higher-order, two-factor model on which the Type I and Type II distinction rests. Across the five samples and in the pooled sample, a two-cluster solution did not emerge. In sum, the results failed to provide empirical support for the Type I and Type II alexithymia distinction.

1. Introduction

Over the past two decades there has been an expansion of research investigating the alexithymia construct. Many of the early empirical studies on alexithymia investigated its association with somatization, addictive behaviours, and post-traumatic states (Taylor, Bagby, & Parker, 1997); recent studies have explored other aspects of the construct, including treatment outcomes, neural correlates; association with different attachment styles, relations with various aspects of emotional processing, and the contribution of genetic factors (Taylor & Bagby, 2004). Given that many of these studies involve researchers from different countries, it is important that investigators employ a common definition and understanding of the nature of the alexithymia construct.

The alexithymia construct is comprised of four components – difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal; difficulty describing feelings to others; a stimulus-bound, externally orientated cognitive style; and constricted imaginal processes (Nemiah, Freyberger, & Sifneos, 1976). These four components are operationalized in the Toronto Structured Interview for Alexithymia (TSIA) (Bagby, Taylor, Parker, & Dickens, 2006); the 20-item Toronto Alexithymia Scale (TAS-20) assesses three of the components (Bagby, Parker, & Taylor, 1994).

Although the difficulty identifying feelings and difficulty describing feelings factors of the TSIA and TAS-20 assess awareness of emotional feelings, Bermond (1997) regards an incapacity or reduced ability to experience emotional feelings as a distinct fifth component of the alexithymia construct. To assess the five components Vorst and Bermond (2001) developed the 40-item Bermond–Vorst Alexithymia Questionnaire (BVAQ), which is composed of five subscales: Emotionalizing; Fantasizing; Identifying; Analyzing; and Verbalizing. Vorst and Bermond (2001) define emotionalizing as "the degree to which someone is emotionally aroused by emotion inducing events" (p. 417). Their conceptualization of "emotionalizing" remains controversial, as this definition suggests differences in degrees of physiological arousal rather than differences in awareness of feelings, which is the cornerstone of the alexithymia construct (Nemiah et al., 1976).

On the basis of reputed knowledge of the neurobiology of different aspects of emotional experience Bermond (1997) proposed two types of alexithymia: Type I alexithymia is characterized by a low degree of conscious awareness of emotional arousal and a low degree of emotion accompanying cognitions; Type II alexithymia is characterized by a normal or high degree of conscious awareness

* Corresponding author. Address: Centre for Addiction and Mental Health, 250 College Street, Toronto, Ontario, Canada M5T 1R8. Tel.: +1 (416) 535 8501x6939; fax: +1 (416) 260 4125.
E-mail address: michael_bagby@camh.net (R.M. Bagby).

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of emotional arousal together with a low degree of emotion accompanying cognitions. Initially, two higher-order factors derived from a principal components analysis of the five BVAQ subscales – an Affective factor, composed of the Emotionalizing and Fantasizing subscales, and a Cognitive factor, composed of the Identifying, Analyzing and Verbalizing subscales – formed the basis for assessing this typological model of alexithymia (Vorst & Bermond, 2001). Bermond et al. (2007) subsequently located the Analyzing subscale on both the Affective factor and the Cognitive factor. Those individuals scoring "unfavourably" (i.e., high) on both factors are classified as Type I alexithymics. Those scoring "unfavourably" (i.e., high) on the Cognitive factor and "favourably" (i.e., low) on the Affective factor are classified as Type II alexithymics.

The viability of the Type I and Type II alexithymia distinction rests, in part, on the empirical verification of these two types, which in turn rely on the capacity of the BVAQ subscales to assess the two higher-order factors. Yet, results from factor analytic investigations of the BVAQ subscales are not uniformly supportive of the two-factor structure (Bekker, Bachrach, & Croon, 2007; Bermond et al., 2007; Vorst & Bermond, 2001). Even if results were supportive, this would not confirm the presence of types; the presence of two higher-order factors merely suggests the presence of two higher-order latent traits. To infer variants or types, one must use subjects as the variable and identify if these subjects sort into meaningful "clusters". Cluster analysis is a statistical procedure for determining whether individuals can be placed in groups, where members of the groups share properties in common (Kaufman & Rousseeuw, 1990). This procedure uses similarity among variables to identify groupings of cases, organizing them into homogenous subgroups (Everitt, Landau, & Leese, 2001). No study to date has used cluster analysis to identify alexithymia subtypes.

In the current study we use confirmatory factor analysis (CFA) to investigate the validity of the higher-order factor structure of the BVAQ on which the defining features of the postulated subtypes of alexithymia are based. Although previous investigators have tested several different structural models of the BVAQ, none has examined a five-factor model at the subscale level and a completely defined, uncorrelated two-factor model. Testing these two models is critical, as the uncorrelated, two-factor model corresponds most closely to the Type I and Type II alexithymia distinction and the five-factor model is the most likely alternative model underlying the five BVAQ subscales. Consistent with Vorst and Bermond's (2001) proposal, we hypothesized that a two-factor model would be the best fit. We use model-based cluster analysis to evaluate the empirical viability of the Type I and Type II distinction. Under the assumption that at least two subtypes of alexithymia exist, it was hypothesized that two subgroups or clusters corresponding to the configuration proposed by Bermond and colleagues would be identified.

2. Method

2.1. Samples

Several samples were included in the analyses ($N = 1696$), derived from an international database ($N = 2367$) of subjects who had completed different language versions of the 40-item BVAQ. We only included samples from this larger database if the sample exceeded $n = 200$ to ensure adequate statistical power for model testing, and if there were no uncompleted items on the BVAQ protocols (i.e., no missing data). The characteristics of these samples are displayed in Table 1. The Canadian English-speaking and the Belgian French-speaking students were volunteer participants recruited

Table 1
Sample characteristics.

Sample	N	Mean age (SD)	% Females
Canadian English students	292	21.78 (4.87)	77.8
Belgian French students	571	20.73 (3.33)	81.6
German psychiatric patients	207	39.55 (12.74)	45.9
Portuguese medical patients	256	38.80 (11.24)	85.7
Belgian Flemish adults	370	38.36 (12.51)	59.9
Pooled sample	1696	29.83 (12.66)	72.2

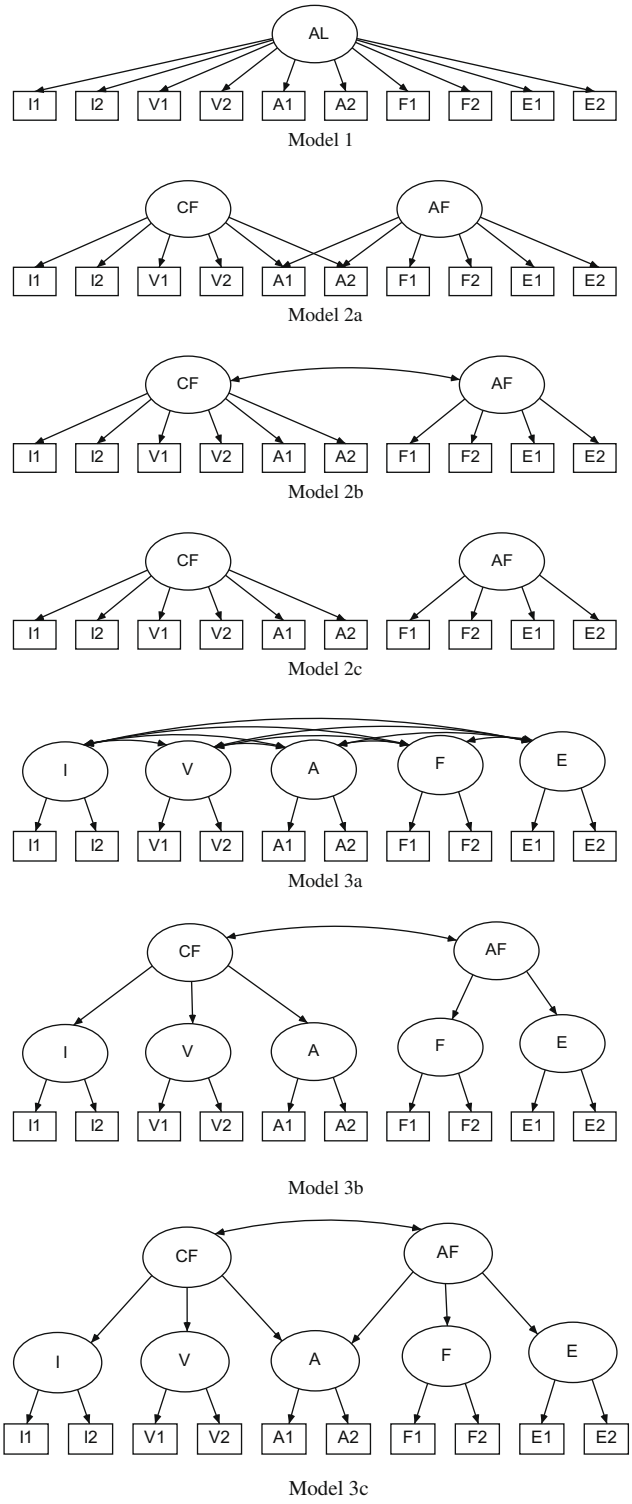

Fig. 1. Error variables have been omitted for clarity. AL = Alexithymia; CF = Cognitive Factor; AF = Affective Factor; I = Identifying; V = Verbalizing; A = Analyzing; F = Fantasizing; E = Emotionalizing.