Alexithymia and dimensions of "Emotional Openness" in non-clinical samples of adults and adolescents

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Introduction

The term **Alexithymia**, literally *without word for feelings*, is mainly characterized by a difficulty in identifying and describing feelings, a difficulty in differentiating feelings from bodily sensations, a utilitarian way of thinking and a paucity of fantasy or imagination (Sifneos, 1973). Alexithymia is seen today as a multifaceted and dimensional personality construct (Zimmermann, et al., 2005) reflecting a deficit in the cognitive processing and regulation of emotional states. It is regarded as a possible vulnerability factor for various somatic and psychiatric disorders in adult populations (Taylor, Bagby & Parker, 1997) and adolescent populations (e.g. Zimmermann, 2006).

Referring to recent emotion theory, Reicherts (1999, 2001) proposed the model of **Emotional Openness** which provides a multidimensional framework to analyze the patterns of emotion processing. Recent results underline for example the clinical importance of those dysfunctional modes of emotion processing in dependence and personality disorders (Reicherts, et al., in press), or in Burnout (Genoud & Reicherts, submitted).

Objectives

The aim of this study is to provide data concerning the relationship between the dimensions of Alexithymia and Emotional Openness in adult and adolescent samples. Furthermore, from a developmental perspective, this study explores the evolution of Alexithymia and Emotional Openness between adolescence and adulthood.

Method

Sample

Four hundred and two adult and adolescent subjects (274 females / 128 males, mean age = 25.2, SD = 11.2). In order to compare dimensions of Alexithymia and Emotional Openness across age groups, the sample was partitioned into three groups: **group 1** (≤ 19 years old, N=152), **group 2** (19 < years old ≤ 22, N=126) and **group 3** (> 22 years old, N=124).

Instruments

- French version of the 20-item Toronto Alexithymia Scale (**TAS-20**; Bagby, et al., 1994). For this scale, a three-factor structure was proposed: (DIF) "Difficulty identifying feelings", (DDF) "Difficulty describing feelings" and (EOT) "Externally oriented thinking".
- French version of the 20-item Dimensions of Openness to Emotional experiences (**DOE-trait**; Reicherts, 1999, 2001). The 5 basic dimensions of Emotional Openness (see Table 1) are to be considered as the result of a complex interactions between the biological factors and the subject's background.

Table 1. – Dimensions of the DOE

Scale	Description of scale	Alpha mean
REPCON	Cognitive-conceptual representation of mental and bodily states, and process in terms of distinct and differentiated emotions and feelings, relying on concepts, schemata or scripts.	.82
EMOCOM	Expression and communication of emotions toward other people, openness on the social-interactional level (sharing of emotions or self-disclosure).	.82
PERINT	Perception or awareness of internal bodily phenomena or indicators which characterize emotions (e.g. cardiovascular, respiratory or gastro-intestinal activity, etc.).	.77
PEREXT	Perception or awareness of external bodily phenomena of emotions which can become visible externally (e.g. facial expression, motor activity, posture, muscular tension, trembling, etc.).	.72
REGEMO	Regulation and control of emotional process – including also "monitoring" activities – to attenuate or delay emotional impact; the regulation may concern cognitive, bodily and social level.	.76

Results

Descriptive statistics

Table 2. – Means (standard deviations) for TAS-20 and DOE for the 3 age groups

	Group 1 (N = 152) ≤ 19 years old	Group 2 (N = 126) 19 < years old ≤ 22	Group 3 (N = 124) > 22 years old	Total sample (N = 402)
TAS-20				
DIF	17.11 (5.08)	17.24 (4.92)	13.73 (5.01)	16.11 (5.24)
DDF	13.05 (4.08)	13.24 (4.20)	11.56 (4.48)	12.65 (4.29)
EOT	16.99 (4.65)	15.42 (3.69)	16.90 (4.93)	16.47 (4.51)
Total score	47.14 (9.65)	45.90 (9.25)	42.19 (11.55)	45.23 (10.34)
DOE				
REPCON	2.13 (0.84)	2.14 (0.78)	2.56 (0.83)	2.27 (0.84)
EMOCOM	2.27 (0.89)	2.26 (0.89)	2.05 (0.85)	2.20 (0.88)
PERINT	1.96 (0.88)	2.17 (0.79)	1.90 (0.91)	2.01 (0.87)
PEREXT	2.13 (0.87)	2.13 (0.85)	1.85 (0.76)	2.04 (0.84)
*REGEMO**	2.13 (0.72)	2.19 (0.89)	2.50 (0.73)	2.33 (0.75)

** Analyses were done on 176 subjects because data for REGEMO were unavailable with the version of DOE used with 226 subjects.*

One-way ANOVA

Results of a one-way ANOVA showed a significant effect of age group on the three factors (DIF, DDF and EOT) and the total score of the TAS-20, as well as on all dimensions of the DOE except EMOCOM.

There was a significant linear trend ($p < .01$) indicating that, with age, the level of alexithymia (TAS-20 total score, $F_{(1,399)} = 16.19$), the difficulty in identifying feelings (DIF, $F_{(1,399)} = 31.06$) and the difficulty in describing feelings (DDF, $F_{(1,399)} = 8.33$) decreased. Concerning Emotional Openness, results indicated a significant linear trend ($p < .01$) showing that, with age, REPCON ($F_{(1,399)} = 16.02$) and REGEMO ($F_{(1,173)} = 10.33$) increased and PEREXT ($F_{(1,399)} = 7.40$) decreased. Planned contrast revealed that subjects older than 22 (group 3) differ significantly ($p < .01$) from subjects of group 1 (≤19 years old) and 2 (between 19 and 22 years old) on TAS-20 total score ($t_{(399)} = 3.66$, effect size $r = .30$), DIF ($t_{(399)} = 3.66$, effect size $r = .17$), DDF ($t_{(399)} = 3.66$, effect size $r = .18$), REPCON ($t_{(399)} = 3.66$, effect size $r = .23$), PEREXT ($t_{(399)} = 3.66$, effect size $r = .15$) and REGEMO ($t_{(173)} = 3.66$, $p < .05$, effect size $r = .17$).

Correlations and multiple regressions

Results (see Table 3) indicated meaningful associations between dimensions of Emotional Openness (especially REPCON, EMOCOM and REGEMO) and Alexithymia. More specifically, the DIF factor of the TAS-20 presented relatively high negative significant correlations with REPCON and REGEMO. Other high negative significant correlations are found between the DDF factor of the TAS-20 and EMOCOM and REPCON.

Table 3. – Correlations between TAS-20 and DOE (total sample)

	TAS-20			
	DIF	*DDF*	*EOT*	*Total*
DOE				
REPCON	-.52*	-.41*	-.19*	-.52*
EMOCOM	-.06	-.48*	-.39*	-.40*
PERINT	.26*	-.01	-.34*	-.02
PEREXT	.23*	.03	-.24*	.03
REGEMO	-.41*	-.24*	.05	-.27*

** $p < .05$*

Regression analyses showed that 41% of the the variance of alexithymia (TAS-20 total score) can be explained by the five dimensions of the DOE ($F_{(5,170)} = 25.21$, $p < .01$) with REPCON ($\beta = -.47$, $p < .01$), EMOCOM ($\beta = -.33$, $p < .01$) and REGEMO ($\beta = -.14$, $p < .05$) as significant predictors of alexithymia.

Discussion

The overall results of this study indicate that Alexithymia and Emotional Openness, although from different theoretical background, are related concepts. As expected, DIF is particularly correlated to REPCON and DDF to EMOCOM. However, although alexithymia overlaps with various dimensions of the DOE (REPCON, EMOCOM and REGEMO), these dimensions explain only a portion of the variance.

In accordance with previous results showing a decrease of alexithymic features across adolescence (Zimmermann, et al, in press), our results indicate that **the development of the ability to regulate emotions goes on from end of adolescence to young adulthood**. With age, the difficulty to identify emotions and to describe them decreased while the ability of cognitive representation and regulation improved.

Taken together, these results lends support to the model of **Emotional Openness** and suggest that the DOE is a **highly interesting alternative** to asses the pattern of emotion processing and affective states in line with recent emotion theories.

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