

## Self-criticism, dependency, and adolescents' externalising and internalising problems

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### Key words

dependency, Depressive Experiences Questionnaire for adolescents, externalising problems, internalising problems, self-criticism.

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Received 17 March 2013; accepted 22 July 2013.

doi:10.1111/cp.12024

### Abstract

**Objectives:** The present study examines the role of dependency (interpersonal relatedness) and self-criticism (self-definition) in internalising and externalising problems.

**Methods:** Three hundred forty-six suburban Portuguese high-school students age 14–18 (mean = 16.14, standard deviation = 1.19) responded to the Depressive Experiences Questionnaire and the Youth Self-Report. The impact of depression, measured by the Children's Depression Inventory, on the relationship of dependency and self-criticism on internalising and externalising problem behaviours was examined.

**Results:** Both self-criticism and dependency, controlled for level of depression, were associated with internalising behaviour problems in both girls and boys. Gender differences, however, were observed in externalising problems. Externalising problems in boys were also associated with self-criticism. But externalising problems in girls were not associated with psychological variables and thus may be more a function of environmental rather than psychological factors.

**Conclusions:** Implications of these findings for intervention are discussed.

### Key Points

- 1 Clinical interventions with adolescents should focus on the personality qualities of dependency and self-criticism as the motivational force behind the disturbed internalising and externalising behaviour. Internal representations of worthlessness or inferiority that are part of self-criticism could be amenable to change in psychotherapy. Psychotherapy can also be helpful in addressing issues of loneliness, and feelings and fears of abandonment typical of the anaclitic personality configuration.
- 2 Observed differences between girls and boys have important therapeutic implications and suggest that externalising symptoms in girls may be the consequence of factors other than personality dimensions, possibly socio-economic factors and peer relationships.
- 3 The Depressive Experiences Questionnaire for adolescents appears to make important contributions to the assessment of these personality dimensions.

Blatt (1974, 1990, 2004, 2008) identified two central personality dimensions, interpersonal relatedness, and

self-definition as central psychological dimensions in adaptive and maladaptive personality organisation. Optimal personality development is characterised by the integration of the capacity for self-definition and interpersonal relatedness in a coordinated sense of self in relation to others (Blatt, 2008). Such integration is essential for physical and psychological well-being as well as the reduction of vulnerability to distress (Blatt & Zuroff, 1992).

This article is based in part on the third author's master thesis under the supervision of the first author. Grateful thanks are extended to all of the participants in this study.

Funding: None.

Conflict of interest: None.

Differences in the relative emphasis that individuals place on issues of relatedness and self-definition delineate two fundamental personality styles, each with distinct modes of cognition, defence, and coping strategies (Besser & Priel, 2003; Blatt, 2008; Blatt & Shichman, 1983; Campos, Besser, & Blatt, 2011). While these two personality dimensions develop in a synergistic, mutually facilitating transaction in optimal personality development, severe disruption of this normal process can result in a one-sided preoccupation with issues of interpersonal relatedness at the expense of the development of the self, on one hand, or to a preoccupation with issues of the self at the expense of interpersonal relatedness, on the other. Exaggerated emphasis on one of these two normal developmental lines to the neglect or avoidance of the other (i.e., disruptions of the normal developmental process) can be expressed in high levels of self-criticism and/or high levels of dependency (Blatt, 1974, 2004; Blatt & Homann, 1992; Blatt & Zuroff, 1992; Nietzel & Harris, 1990; Quimette & Klein, 1993; Zuroff, Mongrain, & Santor, 2004).

The constructs of dependency and self-criticism are assessed with the Depressive Experiences Questionnaire (DEQ; Blatt, D’Afflitti, & Quinlan, 1976, 1979), a 66-item self-report measure that assesses not the symptoms of depression but rather the common life experiences frequently reported by depressed individuals (Blatt *et al.*, 1976) and yields three factors: dependency, self-criticism, and efficacy as continuous orthogonal dimensions independent of level of neuroticism, depression, or of the social context (Zuroff *et al.*, 2004).

The three DEQ factors derive from a principal component analysis conducted with an original standardisation sample (Blatt *et al.*, 1976, 1979). The first DEQ factor, dependency, includes fears of abandonment and feelings of helplessness and loneliness (e.g., “Without support from others who are close to me, I would be helpless”). The items loading heavily on the second DEQ factor, self-criticism, reflect preoccupation with issues of failure, and an intense and harsh self-critical attitude (e.g., “It is not who you are but what you have accomplished that counts”), and a third factor, labelled efficacy, includes items that reflect self confidence but not excessive competition. This resilience dimension is unrelated to depression and “assesses the individual’s goal strivings, feelings of independence and a sense of confidence about resources, capacities and inner strength with feelings of pride, and satisfaction about self-accomplishments” (Blatt *et al.*, 1976, pp. 384–385).

Considerable empirical research and several meta-analyses indicate that high levels of dependency and/or self-criticism, as measured by the DEQ, assesses vulnerability factors to depression (e.g., Besser, Guez, & Priel,

2008; Besser, Luyten, & Blatt, 2011; Besser & Priel, 2005, 2010, 2011.; Besser, Vliegen, Luyten, & Blatt, 2008; Blatt, 2004, 2008; Blatt *et al.*, 1976; Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982; Campos, Besser, & Blatt, 2010; Mongrain & Zuroff, 1995; Quimette & Klein, 1993; Yao, Fang, Zhu, & Zuroff 2009) as well as to other forms of distress such as anxiety, neuroticism or hostility (e.g., Bagby & Rector, 1998; Blatt & Zuroff, 1992; Mongrain, Vettese, Shuster, & Kendal, 1998; Mongrain & Zuroff, 1995; Overholser & Freiheit, 1994; Quimette & Klein, 1993; Zuroff, 1994; Zuroff & Lorimier, 1989).

Both dependency and self-criticism assess a wide range of experiences associated with depression and psychopathology more generally. The focus on subjective experiences rather than on the symptoms of depression, has enriched the understanding of depression in both clinical and non-clinical populations (Blatt, 2004).

Subsequently, Blatt, Schaffer, Bers, and Quinlan (1992) developed the DEQ for adolescents (DEQ-A). Twenty-three items remained the same, but the other 43 items were modified to capture experiences relevant to adolescents. Several factor analyses indicate that the same three factors emerge from the DEQ-A and several studies support the construct validity of the DEQ-A (e.g., Blatt *et al.*, 1992; Blatt, Zohar, Quinlan, Luthar, & Hart, 1996; Fichman, Koestner, & Zuroff, 1994; Frank *et al.*, 1997; Klomek *et al.*, 2008; Kuperminc, Blatt, & Leadbeater, 1997; Luthar & Blatt, 1993; Shahar, Blatt, Zuroff, Kuperminc, & Leadbeater, 2004; Shahar, Gallagher, Blatt, Kuperminc, & Leadbeater, 2004; Shahar, Henrich, Blatt, Ryan, & Little, 2003; Shahar, Henrich, Winokur, Blatt, Kuperminc, & Leadbeater, 2006). The DEQ-A is suitable to be used with ages between 12 and 18.

In terms of the assessment of behaviour problems, Achenbach’s (1991) Youth Self-Report (YSR) assesses two major sets of behaviour problems in adolescence: internalising and externalising. Internalising problems include anxiety/depression, withdrawal, and somatic complaints. Externalising problems include aggressive behaviour and delinquency.

The internalising-externalising model has many advantages: It provides evidence that many psychiatric disorders are interrelated rather than isolated disorders (Krueger, Markon, Patrick, Benning, & Kramer, 2007). Similar to Blatt’s (2008) two polarities model of personality development and psychopathology, the internalising/externalising model emphasises the continuity between normal and disrupted personality development (Krueger *et al.*, 2007). In addition, the internalising/externalising model has provided evidence that the structure of psychopathology is similar in children, adolescents, and adults, thus introducing a

developmental perspective into psychiatric classification (De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006).

The DEQ-A factors of dependency and self-criticism not only correlate with depression, but they also correlate with internalising and externalising problems as measured by the YSR. Dependency usually correlates with internalising problems, while self-criticism correlates with both internalising and externalising problems (Blatt et al., 1996; Kuperminc et al., 1997; Leadbeater, Blatt, & Quinlan, 1995; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999; Leadbeater & Linares, 1992), thus raising the question of the role of depression in the association of dependency and self-criticism with internalising and externalising problem behaviours.

## Aim of the Study

Based on the extensive research conducted with Blatt's two configurational model and its specification of the two basic polarities in personality development and psychopathology including depression, the present study tests the previously established relationship of dependency and self-criticism with internalising and externalising problems in adolescent girls and boys (Leadbeater et al., 1999) controlling for the influence of depression. In addition, we examine these effects while controlling for the shared variance between externalising and internalising symptoms. This clarification of personality risk factors in adolescent behaviour problems should provide guidance for interventions around disrupted functioning in adolescents.

Evidence indicates that various forms of psychopathology can be classified into two broad configurations: the anaclitic (or relatedness) configuration and the introjective (self-critical) configuration (Blatt, 2008; Blatt & Shichman, 1983), suggesting that the two DEQ factors of dependency and self-criticism might be associated with a wide range of symptoms in the internalising and externalising clusters of behavioural problems (Blatt et al., 1996; Kuperminc et al., 1997). Prior investigations of these relationships, however, have not controlled for the effect of depression in the relationship between these personality vulnerability dimensions, and internalising and externalising behaviour problems. Prior evidence suggests that dependency-associated experiences of loneliness and separation anxiety would be expressed in internalising problems beyond depression primarily in girls and that self-criticism involving feelings of inferiority that contribute to expressions of anger and aggression would be associated with both internalising and externalising problems beyond the level of depression in both girls and boys.

Given that the prevalence and nature of internalising and externalising problems are different for each gender (e.g., Achenbach, 1991) and that gender differences in dependency and self-criticism exist (e.g., Blatt et al., 1992, 1996) gender comparisons were examined as well as controlled in our initial analyses.

## Method

### Participants and Procedures

Three hundred and forty-six students from two suburban Portuguese high schools volunteered to participate, 171 (49.4 %) female, and 175 (50.6%) male, ranging in age from 14 to 18 years (mean ( $M$ ) = 16.14, standard deviation ( $SD$ ) = 1.19). The great majority (>95%) of the participants were Caucasian. During class time and in groups of 10–30, students received a brief explanation of the purpose of the study and then completed a battery with the Portuguese form of the DEQ-A, the Children's Depression Inventory (CDI) and the YSR presented in random order. Participation was voluntary and anonymous. The directors of both schools authorised data collection and parents gave informed consent after receiving at home an informed consent document. Seventy-two per cent of the initially contacted parents returned the consent form. This study was approved by the Department of Psychology, and the guidelines of the *Portuguese Psychologists Board* were followed. Participants were provided the opportunity to discontinue the study at any time, and 12 chose to do so. Data collection was conducted with efforts taken to ensure privacy and protect confidentiality.

### Measures

#### The DEQ-A

The DEQ-A is a 66-item scale that yields three orthogonal factors: dependency, self-criticism, and efficacy. The first two factors assess patterns of experience that reflect predispositions to depression and psychopathology, and are appropriate for the use with non-clinical populations. The dependency factor reflects a preoccupation with abandonment and separation, feelings of being unloved, and fear of loss (e.g., "Without the support of others who are close to me, I would be helpless"). The second factor, self-criticism, reflects concerns about failure and guilt, and being unable to meet high standards set by the self and by others (e.g., "It is not who you are but what you have accomplished that counts"). The third factor, efficacy, assesses personal resilience, and inner strength

(e.g., “I have many inner resources”). Scores on this third factor were not used for any focal analysis in the present study because efficacy is not a risk factor for depression and psychopathology.

The adult form of the DEQ, but not the DEQ-A, had been translated into Portuguese (Campos, 2009), so we translated and evaluated the internal consistency and validity of the Portuguese translation of the DEQ-A before exploring the hypothesis of our study.

The translation of the DEQ-A into Portuguese was conducted in several stages. First, a preliminary translation was evaluated by clinicians proficient in English. The items were translated in the most literal way, and when this was not possible, efforts were made to try to maintain the meaning of the original item following the Van de Vijver and Hambleton (1996) guidelines. The Portuguese translation was translated back into English by two English translators. We then compared the back-translations with the original DEQ-A, and differences in a few items were modified. Finally, a pilot study was conducted with 21 students to assess the ease of the comprehension of the items.

Cronbach's alphas were .85 and .68 for the dependency and self-criticism, respectively. Similar to Blatt et al. (1992), a *principal component analysis* with a *varimax rotation* was conducted. Three factors were extracted, consistent with the Scree plot test. The three factors in our sample yielded *Eigenvalues* of 10.8, 4.4, and 3.0, explaining 13.22%, 8.11%, and 6.27%, of the variance, respectively, for 27.6% of the total variance. This total percentage of explained variance is similar to that of 20.0% in the original study (Blatt et al., 1992). Items with factor loadings greater than .40 on the three factors were similar to those reported by Blatt et al. (1992, p. 89). However, self-criticism emerged as the first factor, dependency as the second, and efficacy as the third. Orthogonal procrustes rotation of the Portuguese varimax factor loading matrix to the Blatt et al. (1992) target factor loading matrix was undertaken using the Orthosim-2 (Barrett, 2005) software routine. The coefficient of congruence of the Portuguese with the original DEQ target matrix was .87. Two agreement indexes were also computed between the factor loadings within the two factor matrix, the double-scaled Euclidean similarity (.93), and the internal distance smoothed similarity (.92) indicating a reasonable degree of similarity between the two factor structures (Barrett, 1986).

In the DEQ-A, as in the case of the original DEQ, scores of each of the 66 items are multiplied by the factor weight coefficient obtained in the original sample for each of the three factors: dependency, self-criticism, and efficacy. According to this system, all 66 items, relative to their factor weight coefficients, contribute to each of the

three factor scores. The original standardised scores and the factor weight coefficients were used in the present study.

### The CDI

To assess depressive symptoms, participants responded to the Portuguese version (Dias & Gonçalves, 1999) of the CDI (Kovacs, 1992). The CDI is a 27 item, self-report measure of the severity of depressive symptoms for children and adolescents. Responses are given in a 3-point scale. It measures a wide range of depressive symptoms including disturbed mood, inability to experience pleasure, vegetative symptoms, self-devaluation, and negative dysfunctional interpersonal behaviour. Higher values reflect a greater severity of symptoms (Dias & Gonçalves, 1999). The total score is obtained by summing the values obtained in each item. In the original version, the questionnaire had an alpha of .80. In the Portuguese adaptation (Dias & Gonçalves, 1999), alpha was also .80. In the present study, alpha was .74.

### The YSR

To assess externalising and internalising symptoms, participants responded to the Portuguese version (Fonseca & Monteiro, 1999) of the YSR (Achenbach, 1991), a questionnaire comprised of 112 items that assesses a wide range of behaviour problems in adolescence. The responses are given on a 3-point scale. Results can be obtained for nine specific problem scales and for two higher order syndromes: internalising and externalising problems. Cronbach's alphas in the original YSR ranged between .71 and .89 (Achenbach, 1991). In the Portuguese adaptation (Fonseca & Monteiro, 1999), internal consistency is satisfactory, with alphas ranging between .70 and .80. In the present study, alpha was .86 for internalising problems and .84 for externalising ones.

## Results

### Gender Comparisons

The mean values of the scales appear in Table 1. Comparisons of the means for male and female adolescents on dependency and self-criticism indicated that dependency was higher ( $t(344) = 5.43, p < .001$ ) for girls ( $M = .42$ ) than for boys ( $M = -.12$ ), but no significant differences were found between boys ( $M = -.10$ ) and girls ( $M = -.24$ ) for self-criticism ( $t(344) = 1.42, ns$ ).



**Table 1** Means (*M*s) and standard deviations (*SD*s)

Scale	Sample as a whole ( <i>N</i> = 364)	Boys ( <i>N</i> = 175)	Girls ( <i>N</i> = 171)
DEQ-A—dependency	<i>M</i> = .15 <i>SD</i> = .96	<i>M</i> = .42 <i>SD</i> = .92	<i>M</i> = -.12 <i>SD</i> = .92
DEQ-A—self-criticism	<i>M</i> = -.17 <i>SD</i> = .94	<i>M</i> = -.24 <i>SD</i> = 1.00	<i>M</i> = -.10 <i>SD</i> = .86
CDI	<i>M</i> = 11.19 <i>SD</i> = 4.97	<i>M</i> = 12.31 <i>SD</i> = 4.96	<i>M</i> = 10.01 <i>SD</i> = 4.73
YSR—externalising problems	<i>M</i> = 13.78 <i>SD</i> = 6.92	<i>M</i> = 13.98 <i>SD</i> = 7.10	<i>M</i> = 13.57 <i>SD</i> = 6.76
YSR—internalising problems	<i>M</i> = 15.91 <i>SD</i> = 8.16	<i>M</i> = 18.61 <i>SD</i> = 8.21	<i>M</i> = 13.25 <i>SD</i> = 7.20

DEQ-A, Depressive Experiences Questionnaire for adolescents; CDI, Children's Depression Inventory; YSR, Youth Self-Report.

## Associations between Self-Criticism, Dependency, Internalising, and Externalising

### Univariate analysis

Correlations between DEQ-A factors were computed (see Table 2). Consistent with prior findings of the independence of the DEQ factors (Blatt, 2004), dependency and self-criticism did not correlate significantly in either the boys' ( $r = -.06$ , *ns*) or girls' ( $r = -.12$ , *ns*) subsamples. Correlations between the DEQ-A factors, and the CDI and YSR symptom scores were also computed. For girls, dependency correlated significantly with internalising problems and with the CDI. The self-criticism factor correlated with both internalising and externalising problems and also with CDI. For boys, dependency and self-criticism correlated with both internalising and externalising problems, and also with the CDI (see Table 2).

### Multivariate analyses

Initially, to assess for the potential effects of gender and age, and their interactions with the personality variables, two hierarchical multiple regression analyses were conducted: one for internalising and one for externalising problems.<sup>1</sup> To control for gender and age, these two

<sup>1</sup> Given that the present study investigates clinical phenomenon in a nonclinical sample, it seems important to examine whether variables are normally distributed. Therefore, we examined this issue in the first stage. We used the Kolmogorov–Smirnov test and the chi-square to test normality. These tests indicated no significant differences between the empirical distribution and the expected normal distribution indicating that the distribution of these variables was not significantly different from normality for the DEQ-A variables.

variables were entered in step 1; the CDI scores were entered in step 2, and dependency and self-criticism were entered in step 3 in order to test for the effect of dependency and self-criticism beyond the effect of depression. In step 4, interactions between gender and dependency, gender and self-criticism, and gender and depression, and between age and dependency, age and self-criticism, and age and depression were entered.

The results are presented in Tables 3 and 4. For internalising symptoms, significant effects were observed for both gender and depression. Significant effects for self-criticism and dependency were also found beyond the variables entered in the first two steps. No significant effects for gender or age were noted for externalising symptoms, although a significant effect for depression was observed. Self-criticism and dependency contributed significantly to externalising problems beyond the effects of depression. No significant interaction effects were obtained for either externalising or internalising problems. For parsimony, the results for the 4th step of regression analysis were removed from Tables 3 and 4.

In order to examine whether the obtained associations between self-criticism and dependency, and externalising and internalising problems beyond depression remained significant while controlling for the shared variance between internalising and externalising behaviour problems (i.e., allowing these variables to correlate), we conducted path analyses with AMOS (version 18; Arbuckle, 2009) using the maximum-likelihood method for the entire sample as well as separately for boys and girls.

### Total sample

In the first step (see Fig. 1a), depression was significantly associated with both internalising ( $\beta = .57$ ,  $t = 13.010$ ,  $p < .0001$ ) and externalising scores ( $\beta = .25$ ,  $t = 4.826$ ,  $p < .0001$ ), explaining 33% of the variance of internalising and 6% of externalising symptoms. In the next step (see Fig. 2a), we added self-criticism and dependency,

**Table 2** Zero-order correlations

	1	2	3	4	5
1. Dependency	—	-.12	.38**	.05	.22**
2. Self-criticism	-.06	—	.55**	.29**	.63**
3. YSR—Internalising problems	.44**	.39**	—	.58**	.68**
4. YSR—Externalising problems	.27**	.23**	.55**	—	.31**
5. CDI	.38**	.51**	.58**	.25**	—

Notes. \* $p < .05$ ; \*\* $p < .01$ , two tailed; correlations above diagonal are for girls and below diagonal for boys. CDI, Children's Depression Inventory; YSR, Youth Self-Report.

**Table 3** Multivariate hierarchical regression for internalising

	$R^2$	$\Delta R^2$	B	SE B	$\beta$	$t/F$	Overall $F$	$df$
Step 1	.09					17.73*	17.73*	2,343
Gender			-4.64	.78	-.31	-5.96*		
Age			.136	.327	.021	.42		
Step 2	.36	+27%				145.46*	65.29*	1,342
Depression			.878	.073	.533	12.06*		
Step 3	.50	+13%				43.93*	66.58*	2,340
Dependency			2.729	.343	.345	7.96*		
Self-criticism			2.731	.391	.338	6.99*		

\* $p < .001$  (two-tailed).  $\Delta R^2$ , increase in  $R^2$ ;  $t$ ,  $t$  value associated with  $\beta$ ;  $F$ ,  $F$  value associated with the changes in  $R^2$ .

controlling for their associations with depression. The former was significantly associated with both internalising ( $\beta = .29$ ,  $t = 6.111$ ,  $p < .0001$ ) and externalising ( $\beta = .22$ ,  $t = 3.612$ ,  $p < .01$ ) symptoms, while the latter was significantly associated with both internalising ( $\beta = .38$ ,  $t = 8.608$ ,  $p < .0001$ ) and externalising ( $\beta = .15$ ,  $t = 2.619$ ,  $p < .01$ ), accounting for a 13% of the explained variance in internalising problems and 4% in externalising problems. Thus, self-criticism and dependency contributed in unique ways to the explained variance in internalising and externalising problems beyond depression as well as to the shared variance of internalising and externalising problems (as these were allowed to be correlated).

#### For girls

In the first step (see Fig. 1b), depression was significantly associated with both internalising ( $\beta = .61$ ,  $t = 10.053$ ,  $p < .0001$ ) and externalising ( $\beta = .30$ ,  $t = 4.088$ ,  $p < .0001$ ), explaining 37% and 9%, respectively. In the next step (see Fig. 2b), we added self-criticism and dependency, controlling for their association with depression. Self-criticism associated significantly with girls' internalising ( $\beta = .35$ ,  $t = 4.975$ ,  $p < .0001$ ) but not with externalising ( $\beta = .18$ ,  $ns$ ). Dependency, similarly, was significantly associated with girls' internalising ( $\beta = .33$ ,

$t = 5.775$ ,  $p < .0001$ ) but not externalising ( $\beta = .03$ ,  $ns$ ) symptoms, significantly adding 13% and 2%, respectively. Thus, self-criticism and dependency contributed uniquely to the explained variance in girls' internalising but not externalising symptoms beyond depression and with the shared variance of internalising and externalising problems (as these were allowed to be correlated).

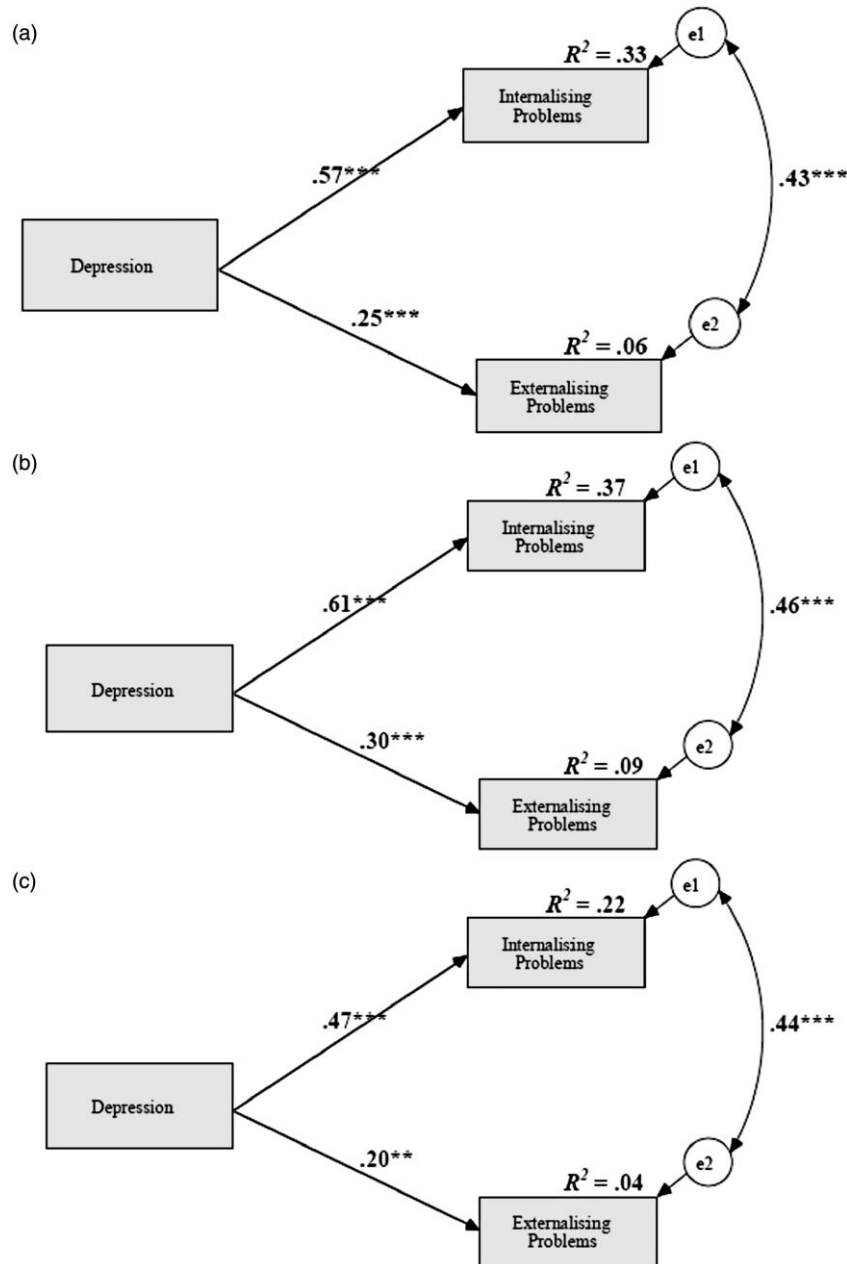
#### For boys

In the first step (see Fig. 1c) depression was significantly associated with both internalising ( $\beta = .47$ ,  $t = 7.003$ ,  $p < .0001$ ) and externalising ( $\beta = .20$ ,  $t = 2.652$ ,  $p < .01$ ) problems, explaining 22% and 4% of the variance, respectively. In the next step (see Fig. 2c), we added self-criticism and dependency, and controlled for their associations with depression. Self-criticism was significantly associated with both internalising ( $\beta = .31$ ,  $t = 2.851$ ,  $p < .01$ ) and externalising ( $\beta = .24$ ,  $t = 2.925$ ,  $p < .01$ ) problems, and dependency was significantly associated with both internalising ( $\beta = .37$ ,  $t = 5.633$ ,  $p < .0001$ ) and externalising ( $\beta = .27$ ,  $t = 3.511$ ,  $p < .01$ ) problems, adding significantly 15% and 8%, respectively, to the explained variance. Thus, self-criticism and dependency made unique contributions to the explained variance in boys' internalising and externalising problems beyond depression and to the shared variance of

**Table 4** Multivariate hierarchical regression for externalising

	$R^2$	$\Delta R^2$	B	SE B	$\beta$	$t/F$	Overall $F$	$df$
Step 1	.002					.310	.310	2,343
Gender			-.35	.72	-.03	-.49		
Age			-.18	.30	-.03	-.59		
Step 2	.07	+6%				23.27*	7.98**	1,342
Depression			.373	.08	.258	4.82**		
Step 3	.10	+3%				7.28*	7.88**	2,340
Dependency			1.05	.40	.15	2.62*		
Self-criticism			1.55	.45	.22	3.40**		

\* $p < .01$ . \*\* $p < .001$  (two-tailed).  $\Delta R^2$ , increase in  $R^2$ ;  $t$ ,  $t$  value associated with  $\beta$ ;  $F$ ,  $F$  value associated with the changes in  $R^2$ .



**Figure 1** Associations between depression and externalising and internalising problems for the sample as a whole (a,  $N = 364$ ), for girls (b,  $N = 171$ ), and for boys (c,  $N = 175$ ). \*\* $p < .01$ . \*\*\* $p < .001$  (two-tailed).

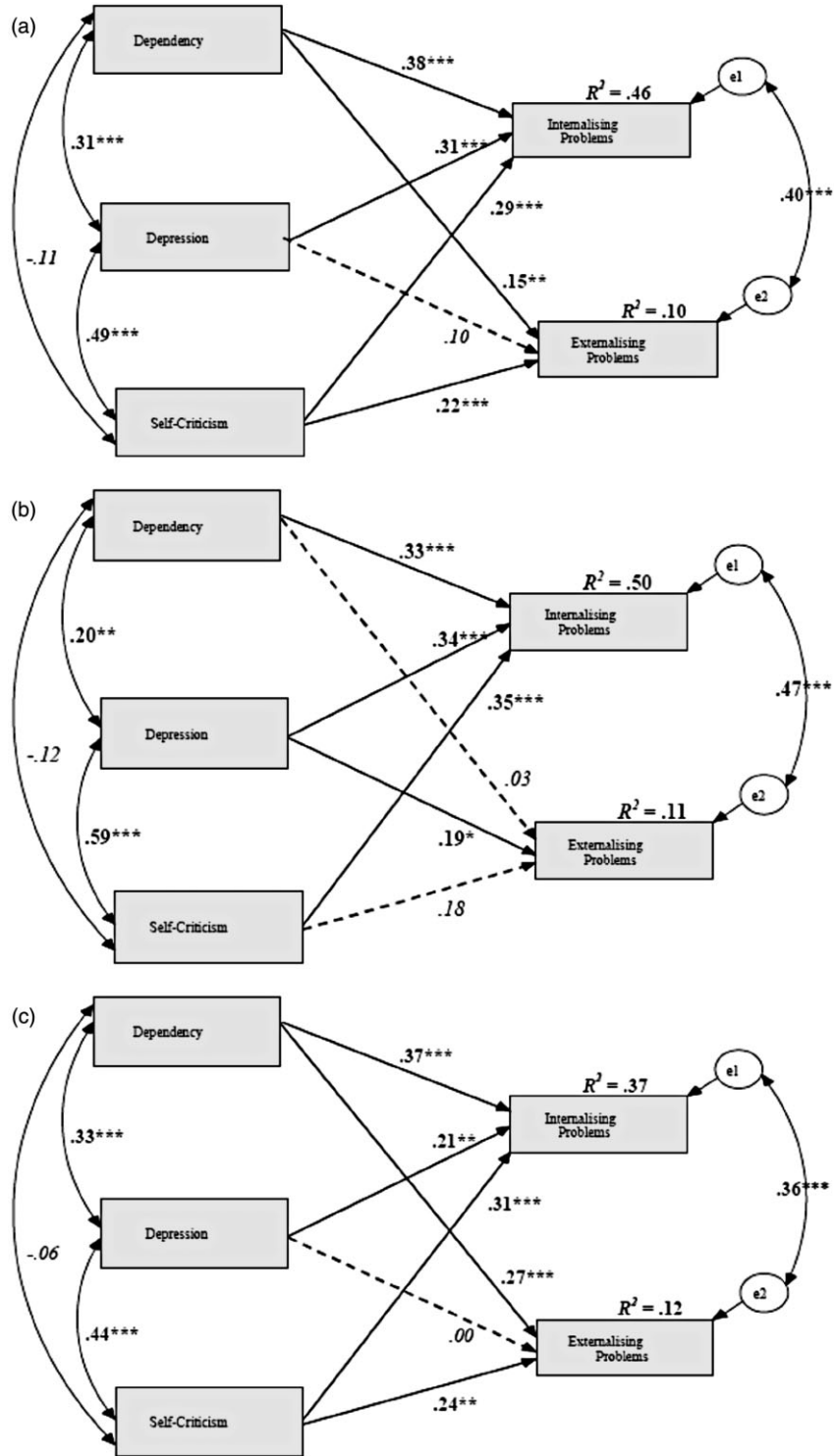
internalising and externalising problems (as these were allowed to be correlated).

## Discussion

The Portuguese version of the DEQ-A yielded findings consistent with previous studies—females scored higher on dependency (e.g., Blatt et al., 1996; Chevron, Quinlan, & Blatt, 1978; Blatt et al., 1992; Henrich Kuperminc,

Sack, Blatt, & Leadbeater 2000; Kuperminc et al., 1997; Leadbeater et al., 1995), and males scored somewhat higher than females on self-criticism (e.g., Blatt et al., 1996; Kuperminc et al., 1997; Shahrar et al., 2006), which in some studies reached statistical significance (e.g., Chevron et al., 1978; Dunkley, Blankstein, & Flett, 1997).

The results of the orthogonal procrustes rotation of the Portuguese DEQ factor matrix were similar to the factor matrix originally reported by Blatt et al. (1992) and



**Figure 2** Associations between self-criticism and dependency, and externalising and internalising problems beyond depression. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$  (two-tailed).



replicated in other samples (see summary in Blatt, 2004). The relative independence of the three factors in the DEQ-A is consistent with findings in several earlier studies (e.g., Luthar & Blatt, 1993; Shahar, Blatt, Zuroff, Kuperminc, & Leadbeater, 2004; Zuroff, Igraja, & Mongrain 1990). In addition, DEQ-A dependency and self-criticism correlated in the expected way with the CDI, consistently with previous studies (e.g., Blatt et al., 1992; Campos, 2009; Frank et al., 1997; Klein, 1989; Shahar, Blatt et al., 2004).

### Internalising and Externalising Problems

Self-criticism and dependency were associated with internalising and externalising behaviour problems as measured on Achenbach YSR, even after controlling for age, gender, and depressive symptoms. The relationship of the DEQ personality factors with externalising and internalising problems on the YSR was somewhat different for boys and girls, indicating that even after controlling for depression, dependency and self-criticism contributed significantly to the explained variance in behaviour problems in both boys and girls. For boys, dependency and self-criticism were associated with both internalising and externalising behaviour problems, and with internalising problems in girls. Particularly noteworthy is the fact these two psychological dimensions, as well as depression, were not significantly associated with externalising problems in girls.

These findings indicate that developmental disruptions expressed by either internalising or externalising problems are associated with personality factors (Luyten & Blatt, 2011). Internalising behaviour appears to have relevant psychological correlates in both girls and boys (i.e., depression, dependency, and self-criticism). But important gender differences are present in externalising problems. These symptoms in boys are clearly related to psychological dimensions—with both dependency and self-criticism but not depression. In girls, in contrast, externalising problems are only marginally related to depression and not with any DEQ factors. These results suggest that externalising problem behaviours, aggressive and delinquent behaviours, in girls do not seem to derive from difficult psychological issues assessed in this study but may instead relate to other factors such as the impact of environment factors including the influence of peers, media, and technology (see Henrich et al., 2000; Kuperminc, Leadbeater, & Blatt, 2001). In fact, new technology, like the massive use of internet by the adolescents in the “digital era,” may be an increasing risk factor for impulsive and acting out behaviours (see King, 2012). Further investigation is needed into the factors related to

externalising aggressive and antisocial behaviour in adolescent girls.

### Limitations

Although a larger sample of adolescents is necessary to assess empirically the degree to which our obtained factor structure is congruent with those reported by Blatt (1974, 1990, 2004, 2008), as well as by others, the similarity between these early factors structures and that found in our data is high. It is also important to note that the percentage of explained variance in externalising problems, although statistically significant, was small, especially for girls, indicating the need for further research in this area. It is also important to note that our results were obtained in a cross-sectional design with self-report questionnaires, findings that need to be cross-validated with data from interviews and projective data, in longitudinal designs. Future studies should also incorporate multiple informants' assessment, i.e., teacher, parent, and/or peer reports of internalising and externalising symptoms. But given these limitations, our findings are important because of their relevance to the increasing evidence of the validity of Blatt's (2008) formulations of the centrality of interpersonal relatedness and self-definition in personality development and psychopathology, especially depression. Our results also indicate the value of the DEQ and DEQ-A as assessment procedures, justifying the efforts to translate these scales into other languages.

### Conclusions and Clinical Implications

The data obtained in the present study indicate acceptable psychometric properties for the Portuguese version of the DEQ-A and contribute to the research on relatedness and self-definition dimensions in depression using the DEQ to investigate the role of personality predispositions in depression and in psychopathology more generally, in adolescents. Findings of the present study, consistent with previous research, indicate that self-criticism and dependency are reliable independent dimensions that clarify gender differences related to depression as well as with internalising and externalising problems in adolescents.

Dependency and self-criticism are grounded within the broader context of Blatt's theory of relatedness and self-definition in psychological development and psychopathology. Clinical interventions with adolescents should focus on these personality qualities rather than on overt symptoms of depression, as the motivational force behind the disturbed internalising and externalising behaviour. For instance, feelings of worthlessness or inferiority, that are part of self-criticism, should be the focus in

psychotherapy. For example, Hawley, Ho, Zuroff, and Blatt (2006) demonstrated that change in self-criticism is an important predictor of change in depressive symptoms during psychotherapy in depressed adults. Psychotherapy can also address issues of loneliness and feelings and fears of abandonment typical of adolescents struggling with intense concerns about their interpersonal relationships (see Blatt, 2008).

Observed differences between girls and boys have important therapeutic implications and suggest that externalising symptoms in girls may be the consequence of factors other than personality dimensions, possibly socio-economic factors and peer relationships, and that these issues need to be explored more fully in future research. But our findings clearly suggest that assessing adolescents' personality predispositions rather than manifest symptoms appears to be a productive direction for future psychological research and that the DEQ-A appears to make important contributions to these efforts.

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