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Authors: Kramer U, de Roten Y, Perry JC, Despland JN

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RUNNING HEAD: DEFENSE MECHANISMS IN BIPOLAR AFFECTIVE DISORDER

Specificities of Defense Mechanisms in Bipolar Affective Disorder: Relations with Symptoms and Therapeutic Alliance

Ueli Kramer, Yves de Roten, Christopher J. Perry, & Jean-Nicolas Despland

Abstract

Defense Mechanisms as a central notion of psychoanalysis have inspired various levels of interest in research in psychotherapy and psychopathology. Defense specificities have only recently been investigated systematically with regard to several clinical diagnoses, such as Affective Disorders, and Personality Disorders. For the present study, 30 inpatients with the diagnosis of Bipolar Affective Disorder I (BD) were interviewed. An observer-rater method, the Defense Mechanisms Rating Scales (DMRS), applied to session-transcripts, of assessment of defenses was used. A matched, non-clinical control group was introduced. Defense specificities in BD encompass a set of five immature defenses, of which omnipotence is linked with symptom level. The level of the therapeutic alliance is predicted by mature defenses. These results are discussed with regard to the psychological vulnerability of BD and treatment implications for psychodynamic psychotherapy with such challenging patients are evoked.

Key-Words: Defense Mechanisms, Bipolar Affective Disorder, Therapeutic Alliance, Observer-Rater Method, Psychodynamic Psychotherapy

SPECIFICITIES OF DEFENSE MECHANISMS IN BIPOLAR AFFECTIVE DISORDER: RELATIONS WITH SYMPTOMS AND THERAPEUTIC ALLIANCE

Defense mechanisms have inspired various levels of interest in psychotherapy research (Cramer, 1998). Since their first definition by Freud (1894), their conceptualisation, width, functionality, clinical and research usefulness have changed, reflecting the evolution of psychoanalytic theory. Nevertheless, defense mechanisms have always played a role of paramount importance in psychoanalysis, for Freud (1914, p. 16), it is "the cornerstone on which the whole structure of psychoanalysis rests". Freud's initial conception of defense as the repression of sexual drive seems too restrictive from today's vantage point (Cooper, 1998; Despland, Drapeau, de Roten, 2001). It was S. Freud himself who revised, in Freud (1926, later by A. Freud, 1936), his conception of defense mechanisms, by differentiating between several intra-psychic mechanisms, different from repression, all aiming at neutralizing unconscious drives and impulses by means of counter-cathexis. This solely intra-psychic function of impulse regulation has been criticized by Ego-psychologists (Hartman, 1958; Hartman, Kris, & Loewenstein, 1964; Schafer, 1968), suggesting defenses certainly had a counter-cathectic function, but at the same time express these underlying impulses and thus, allow gratification. These dynamics need to be hidden from the individual's awareness, to protect the self from internal conflictuality. Unacceptable aggression shown towards somebody close to the individual might be concealed by means of such defenses; for example, by turning the aggression into over-indulgence in using reaction formation, and, at the same time, by expressing the negative intention by the over-indulgent attitude (see Cooper, 1998; Perry, 1993a). This example also illustrates the conceptual shift in psychoanalysis from defenses as intra-psychic regulation to defenses encompassing, in addition, interpersonal regulation of conflicts and drives (Sullivan, 1953; Winnicott, 1965; Modell, 1975; Kohut, 1984; Sandler, 1976; Kernberg, 1975; Levenson, 1993).

"Ups and downs" in research interest in defenses (Cramer, 2000, 1998) might be due to defense concepts in particular and psychoanalysis in general being taboo during a certain time as a research paradigm. It might also be due to previously unsatisfying research methodology. As classical personality psychology is mainly based on questionnaire evaluation, it cannot assess reliably the complexity of the defense concept as an unconscious process. Limitations of self-report evaluation of defenses are reported elsewhere in detail (Perry, & Hoglend, 1998; Perry, 1993a). For psychotherapy research in particular, several rating scales based on observer-rater methodology have been devised; reliability and face validity of the most widely-used methods are satisfactory to high (Perry, & Ianni, 1998). Recent studies have evaluated the inclusion of a separate dimension – the Defensive Functioning Scale (DFS) – in the Diagnostic and Statistical Manual of Mental Disorders (APA, 1994; Hilsenroth, Callahan, & Eudell, 2003; Perry et al., 1998).

Vaillant (1971), based on Semrad's (1967) conception of defensive organization, defined a hierarchical organization of defenses, including four main levels of defensive functioning, ranging from the least to the most adaptive (see also S. Freud, 1926, p. 164, for the initial hint regarding defenses as a function of psychogenetic "stages of organization"; see also A. Freud, 1936; Wallerstein, 1967): psychotic, immature, neurotic and mature. Several studies have empirically corroborated this hierarchy of adaptiveness of defenses on various clinical diagnoses, mainly affective, anxiety, obsessional and personality disorders (Battista, 1982; Jacobson, Beardslee, Hauser, Noam, Powers, Houlihan, & Rider, 1986; Vaillant, 1976; Vaillant, & Drake, 1985; Perry, & Cooper, 1989; Perry, 1993b). In studies based on the Defense Mechanisms Rating Scales (Perry, 1990a, see Method section), immature defense levels (action, borderline, disavowal, narcissistic) are associated with high levels of symptoms and poor social functioning (Perry, & Cooper, 1989; Perry, 1995, 1996; Perry, & Ianni, 1998). As far as affective disorders are concerned, Hoglend and Perry (1998) have shown that

eight lower-level defenses are associated with poor outcome of unipolar depression after six months' follow-up. These defenses encompassed passive aggression, acting out, help-rejecting complaining, splitting of self and other's images, projective identification and devaluation, whereas the other six immature defenses did not predict outcome in depression. The importance of immature defenses in depression with suicidal tendencies has been partially confirmed by a study on self-reported data (Corruble, Bronnec, Falissard, & Hardy, 2004).

With regard to manic and hypomanic symptoms, Fromm-Reichmann concluded that BD patients were "unrewarding" candidates for psychodynamic psychotherapy (Fromm-Reichmann, 1949), a position we are trying to overcome by this study. Perry (1990b, 1988) has shown the linkage between hypomania and mature defenses (e.g., affiliation, self-observation, self-assertion), as well as a negative association between mania and action defenses. Ablon, Carlson and Goldwin (1974) studied the change of defenses over the course of inpatient treatment in Bipolar Affective Disorder (BD) and found less denial, distorsions, and projection once the BD patient improved; patients coming to the end of a manic state tend to use more somatization and hypochondriasis at this point of evolution. According to Perry and Cooper (1986), Bipolar II Affective Disorder is related to obsessional defenses (isolation of affect, intellectualization, undoing). Moreover, in various patients, a manic defense as resistance to treatment - composed by denial and omnipotence (Angel, 1934; Deutsch, 1933; Klein, 1935; Lewin, 1932; Sjöbäck, 1973; Winnicott, 1935, 1965) - might appear throughout psychotherapeutic treatment and in analysis (Baruch, 1997). The function of the manic defense is counter-cathectic of depressive affect, anxiety or guilt (Battegay, 1987; Clifford, & Scott, 1966), thus, Baruch (1997) calls it a reparation process aiming at the avoidance of slipping into negative affect through the regressive process of analysis. Paradoxically, this defensive process becomes the source of guilt and persecutory ideation, affects to be defended

by using projective identification. Finally, several psychotherapy case studies report the relevance of psychoanalytic case conceptualization including defensive functioning and treatment for patients with BD (Deitz, 1995; Jackson, 1993, Kahn, 1993; Salzman, 1998; for a review, see Jones, 2004).

This leads us to our hypotheses: (1) Defense specificity in Bipolar Affective Disorder (BD): inpatients practice more immature defenses, in comparison with controls; (2) Immature defenses are associated with higher levels of symptoms; (3) Defenses are related to therapeutic alliance during inpatient treatment: the more mature defenses, the higher the therapeutic alliance.

METHOD

Sample

A total of 30 inpatients with Bipolar Affective Disorders (BD) were included in the study. A total of 20 (67%) were female; the patients had a mean age of 46.1 years (SD = 11.2 ; ranging from 21 to 60). Their socio-demographic level was assessed by means of the total number of years of education in any field. On average, the patients had 12.4 years of education (SD = 1.1 ; range from 10 to 16). All had a DSM-IV-R diagnosis of Bipolar Disorder I (either F30.x[296.x], F31.x[296.4x or .5x] or F31.6[296.6x]), as diagnosed by the treating clinician, and were included in the study irrespective of the nature of the most recent phase or of the level of chronicity. Some (13; 43%) presented co-morbid disorders, such as drug abuse (23% ; cannabis, alcool, cocaine[1]), personality disorders cluster C (10%), compulsive-obsessive disorders (3%), acute suicidality (3%) and epilepsy (3%). Research diagnoses were established by trained staff by means of SCID (Structured Clinical Interview for DSM-IV; First, Spitzer, Williams, & Gibbon, 2004) in order to corroborate the clinical

1 At the time of the psychiatric inpatient treatment, all patients were fully detoxed. This is particularly true for the moment of the Dynamic Interview.

diagnoses. All (100%) BD diagnoses were corroborated by the SCID, but we did not calculate formal reliability indices. The number of inpatient treatments in psychiatry, including current treatment, varied between 1 and 29 (Mean = 7.7 ; SD = 7.0). Current inpatient stay varied between 4 and 40 days (Mean = 17.27; SD = 10.63).

A strictly matched control group was introduced; matching criteria were gender, age and years of education, as these have an influence on defensive functioning (Labouvie-Vief, Hakim-Larson, & Hobart, 1987; Whitty, 2003). A total of *N* = 30 persons from a community sample were recruited for the study. Out of these, 20 (67%) were female; the controls had a mean age of 41.9 (SD = 14.3 ; range from 23 to 65). Their mean number of years of education was 12.9 (SD = 1.4 ; range from 11 to 18), corresponding to intermediate education level. No inpatient treatment in psychiatry is known for these participants and general symptomatology was in the normal range for all control participants. T-tests yielded no significant differences in the matching variables between the groups (see table 1). All participants gave written informed consent. The study took place in Switzerland and was endorsed by the expert ethical committees of the institutions involved.

Instruments

Defense Mechanism Rating Scales (DMRS; Perry, 1990a; French translation: Perry, Guelfi, Despland, & Hanin, 2004). The DMRS is an observer-rater scale assessing 28 defense mechanisms, based on the hierarchical conception of defensive functioning by Vaillant (1992). Seven levels, ranged according to the criteria of adaptiveness, are included, from the least adaptive to highly adaptive: (1) Action (acting out, passive aggression, hypochondriasis), (2) Borderline (splitting of self/object images, projective identification), (3) Disavowal (denial, rationalisation, projection) and autistic fantasy (for further computation, this defense will be considered on level 3, even if conceptually distinct) (4) Narcissistic (omnipotence, devaluation, idealization), (5) Neurotic (repression, dissociation, reaction formation,

displacement), (6) Obsessional (isolation of affect, intellectualization, undoing) and (7) Mature (affiliation, altruism, anticipation, self-assertion, humor, self-observation, sublimation, suppression). Quantitative scoring has been used, yielding relative frequency scores per defense, as well as an Overall Defense Functioning (ODF) score which can be computed by weighting the absolute frequency of the defenses by their level. For the current study, reliability coefficients on 35% (21; see table 2) of the ratings were established among fully-trained raters and yielded satisfactory results in terms of intra-class correlation coefficients (2, 1; Wirtz, & Caspar, 2002) varying between .64 and .95 (Mean = . 84; SD = .09; see table 2). For these reliability analyses, the single defense was unit of analysis (28 categories).

Symptom Check List SCL-90-R (Derogatis, 1994). This questionnaire includes 90 items addressing various somatic and psychological signs of distress. These items are scored using a Likert-type scale from 0 (not at all) to 4 (very much). Although the instrument is composed of 10 subscales, our study used only the Global Severity Index (GSI, score ranging from 0 to 4), which is a mean rated over all symptoms. Clinical cut-off score is 0.80. The French validation study has been carried out by Pariente and Guelfi (1990) and yielded satisfactory coefficients. Cronbach alpha for this sample was .98. Mean symptom level for patients is higher than for controls (see table 1; range for patients' scores 0.12 - 3.17).

Bech-Rafaelson Mania Scale (BRMS; Bech, Rafaelson, Kramp, & Bolwig, 1978). The BRMS is a clinician-rated scale for manic symptoms, based on 11 items tapping activity level, mood, and other characteristics of mania. The items are rated on a scale from 0 (normal) to 4 (extreme). Clinical cut-off score for mania is 15 (hypomania 6). Range for our patients' scores is 0 – 12. Inter-rater reliability has proven to be high (.80 - .95; Bech, Rafaelson, Kramp, &, Bolwig, 1978; Altman, 2004). BPRS is effective in assessing outcome in clinical trials on BD (Bech, 2002). The French translation has been realized by Chambon, Poncet and Kiss (1989). Cronbach alpha for our patient sample was .77. Reliability computation involved intra-class

correlation coefficients ICC (2, 1) on 20% (6) of the cases and yielded a mean of .97 (SD = .05; range .86 - .99).

Montgomery-Asberg Depression Rating Scale (MADRS; Montgomery, & Asberg, 1979). MADRS is a clinician-rated scale for depressive symptoms, including among others items on sadness, internal tensions, insomnia, appetite reduction, cognitive impairment and suicidal ideation. The 10 items are anchored on a scale from 0 (absence of symptoms) to 6 (invalidating presence of symptoms). Clinical cut-off score for depression is 15. Range for patients' scores is 0 – 38. Several validation studies have reported satisfactory coefficients for the original version (Montgomery, & Asberg, 1979) and concurrent validity (Kearns, 1982; Maier, & Philipp, 1985). The French translation has been realized by Lemperière, Lepine, Rouillon, Hardy, Ades, Luauté and Ferrand (1984) and validation studies on this version yield satisfactory coefficients on specificity, homogeneity and internal consistency (Pellet, Decrat, Lang, Chazot, Tatu, Blanchon, & Berlier, 1987). Cronbach alpha for our patient sample was .89. Reliability computation involved intra-class correlation coefficients ICC (2, 1) on 20% (6) of the cases and yielded a mean of .89 (SD = .11; range .74 - .99).

Working Alliance Inventory (WAI; Horvath, 1981; Horvath, & Greenberg, 1989). The WAI is originally a 36-item self-report measure assessing the quality of the therapeutic alliance according Bordin's conception (1975). Responses are reported on a 7-point Likert-type scale ranging from 1 (never) to 7 (always). Construct validity has been established by Malinckrodt and Nelson (1991), reliability for the whole scale ranges between .84 and .93 (Horvath, 1994). Concurrent and predictive validity have been established (Tichenor, & Hill, 1989; Shick Tryon, & Kane, 1993). A 12-item short version has been developed by Tracey, & Kokotovic (1989), based on factor-analytic procedures. Its French translation has been validated by Corbière, Bisson, Lauzon and Richard (2006) who suggest one general score be

considered for the evaluation of alliance. The 12-item-version has been used for this study. Cronbach alpha for this patient sample was .87.

Procedure

All patients and controls were asked to participate in a dynamic interview (Perry, Fowler, & Semeniuk, 2005) lasting 50 minutes. Dynamic interview (DI) as a research tool has been developed from clinical practice of psychodynamic psychotherapy; thus, the context of DI is comparable to the context of an intake psychotherapy interview (Perry, personal communication). It has been widely used in psychotherapy research (Perry & Cooper, 1989; Hoglend & Perry, 1998). As shown by Perry, Fowler and Semeniuk (2005) and Fowler and Perry (2005), high-quality dynamic interviews are associated with Interviewer's and Overall Dynamic Interview Adequacy (I-DIA and O-DIA).

All inpatients participated in the dynamic interview, as soon as their symptomatic state allowed it. This means that the patients were included in the final third of the duration of inpatient treatment, shortly before discharge. Only two patients had to be excluded from the study due to non-feasibility of the research interview (related to high levels of manic symptoms); all other patients responding to the inclusion criteria and willing to participate were included. The patients were given treatment as usual, encompassing non-specific supportive therapy and medication. Along with the dynamic interview, the evaluation procedure encompassed clinician-ratings of depression and mania. The patients were given the questionnaires at the end of the interview and were asked to fill them in and send them back within two days.

The control group was recruited by means of two local institutions : (1) School of Social Studies (n = 17) ; (2) Association promoting Community Activities and Service (n = 13). Matching criteria were transparently issued at the outset of the control group recruitment. Therefore, only nine participants had to be refused from participation due to failure to meet

the matching criteria. The control participants, unlike the patients who were not paid, were given a contribution (the equivalent of USD 16).

All interviews were tape-recorded and transcribed by Master's-level psychology students, according to the method defined by Mergenthaler and Stigler (1997).

Interviews were rated based on the transcripts. All ratings were done by the first author; reliability of these ratings was established with fully-trained colleagues and supervisors on a randomly chosen 20% of all interviews (for the results see under Instruments).

Data Analytic Strategy

Multivariate statistics are performed to test our first hypothesis. Linear regression analyses are carried out in order to test the relationship between defenses, symptoms and alliance. Bonferroni's correction was introduced where necessary.

RESULTS

Defense Specificities in BD

Multivariate statistics yielded several results in terms of defense specificity (see table 3). Overall, ODF was lower in patients, compared to controls. Secondary analyses (MANOVA per defense level; Bonferroni's correction applied) showed that at inpatient treatment, BD patients practice fewer mature defenses ($F(8; 51) = 6.90$; $p = .00$; altruism, humor, self-assertion, self-observation), fewer obsessional defenses ($F(3; 56) = 6.62$; $p = .00$; intellectualisation), fewer neurotic defenses ($F(4; 55) = 3.51$; $p = .01$; reaction formation, but more often displacement), whereas they more often used narcissistic (F (3, 56) =2.90; $p = .04$; omnipotence), more often disavowal ($F(4; 55) = 8.09$; $p = .00$; rationalization), more often borderline ($F(3, 56) = 3.84$; $p = .01$; splitting of others' images, projective identification) and more often action defenses ($F(3, 56) = 3.67$; $p = .02$; acting out). Effect sizes of the reported between-group differences were moderate, except for ODF, altruism, self-assertion, self-

observation, intellectualization and rationalization, where high ES were observed. No effect for either of these variables was observed when we compared subgroups of patients according to their predominant symptomatology, mania or depression (median-split method applied).

Immature Defenses and Symptom Level

Linear regressions (method enter) yielded specific significant coefficients between immature defenses and symptoms, especially manic symptoms (see table 4). Patients with higher levels of manic symptoms used more often narcissistic defenses (omnipotence and devaluation), whereas no relationship was found for depressive symptoms. General symptom level (GSI) was not related in any way to defenses.

Mature Defenses and Therapeutic Alliance

Linear regression (method Enter) yielded a significant effect between mature defenses and the therapeutic alliance at inpatient treatment ($R^2 = .67$; $p = .01$). In particular, self-assertion predicted the level of therapeutic alliance; the more assertive the patient, the better the therapeutic alliance ($\beta = .32$; $p = .05$).

DISCUSSION

The results corroborate parts of our hypotheses. Our first hypothesis about defense specificities is confirmed; BD patients display a significantly lower Overall Defensive Functioning, a lower level of neurotic and mature defenses and a higher level of immature defenses; thus, these patients are particularly vulnerable due to BD defense specificity. This conclusion is corroborated by the relationship between defenses and manic symptoms and underscored by the result when taking into account the patient's symptom phase: defense specificity is completely independent of the predominant symptomatology.

More specifically, our study yields in total five immature defenses as BD specificities, in comparison with matched controls: acting out, projective identification, splitting of others' images, rationalization and omnipotence; the latter predicts specifically the level of manic

symptoms. There are no effects for idealization, devaluation, denial, projection, autistic fantasy, splitting of self images, help-rejecting complaining and passive aggression; furthermore, displacement is the only neurotic defense more often practiced by BD patients, in comparison with matched controls. Conversely, BD patients practice less often mature, obsessional and neurotic defenses. This clear picture confirms and enlarges Perry and Hoglend's (1998) conclusions on affective disorders indicating that a set of eight immature defenses are related to symptom level and evolution in depression, and sheds additional light on defensive processes in BD specifically. These are different from defensive processes in hypomania (Perry, 1990b; Perry, & Cooper, 1986), whose symptoms are associated either with mature or obsessional defenses, and negatively with action defenses. Thus, Bipolar type I Affective Disorder is consistently associated with lower-level (immature) defenses, unlike type II. The use of borderline and action defenses is associated with increased vulnerability for Recurrent Depression (Perry, 1990b) and symptom intensity in Borderline Personality Disorders (Perry, & Cooper, 1986); the use of narcissistic defenses is associated with higher symptom level in BD (see above) and Borderline Personality Disorder (Perry, & Cooper, 1986). Thus, a specific double defense vulnerability results for BD patients: (1) They are psychologically vulnerable to further episodes of depression, (2) They are psychologically unstable as regards personality features, i.e., borderline defenses, which may contribute together – among other factors such as biological determinants - to explaining the substantial symptomatic fluctuation in BD. The relevance of the double defensive vulnerability should be confirmed in longitudinal studies. Lower defensive functioning is characteristic of many other psychiatric disturbances (e.g., Perry et al., 1998; Perry, 1993b; Perry, & Cooper, 1989). Thus, the results of our study are in line with previous results on patients with severe psychopathology, implying that the defense specificity reported here is probably not exclusive for BD patients and may apply to individual patients from other diagnostic groups, as well.

Narcissistic defenses are an important aspect of BD functioning. These defenses may serve to protect a positive self-concept in a crisis situation (Cooper, 1998; Gilliéron, 2004; Drapeau, de Roten, Perry, & Despland, 2003). Patients presenting narcissistic defenses have difficulty in fully accepting the self as being in need of help. However, this is exactly how they might perceive themselves when facing a crisis situation (Gilliéron, 2004) or are induced to reflect about themselves – as prescribed by the technique of dynamic interviewing (Fowler, & Perry, 2005) and in psychotherapy – which may elicit narcissistic defenses, such as omnipotence. In turn, this defensive attitude again may lead to sub-manic manifestations or symptoms requiring more of the same defenses for the protection of narcissism; even more omnipotence is used, allowing full gratification of desires, maintaining therefore manic symptomatology (Sjöbäck, 1973). These dynamics explain why such patients might appear to the therapist as both “uncomfortable” and “discouraging”. These countertransferential attitudes are not necessarily beneficial for the therapeutic process and need further reflection by the clinician.

The development of a positive therapeutic alliance is supported by the presence of self-assertion in the patient. This tentative result might help the clinician to perceive resources in this clinically challenging group of patients. Further longitudinal studies on this patient group undergoing psychotherapy should investigate the complex relationship between patient’s variables, i.e. defenses, therapist interventions, i.e., the level of interpretations and the therapeutic alliance. Several studies have shown the relevance of the alliance and the therapist interventions for therapeutic outcome (e.g., Gaston, Marmar, Thompson, & Gallagher, 1988; Hersoug, Bogwald, & Hoglend, 2003; Hersoug, Sexton, & Hoglend, 2002; Siefert, Hilsenroth, Weinberger, Blagys, & Ackerman, 2006).

To sum up, in order to assess defenses reliably, especially in BD inpatients, an observer-rater approach is preferable rather than a self-report approach, in view of high face-

validity (Perry, & Ianni, 1998) and the necessity of context-embedded assessment based on session-transcripts, due to the unconscious status of defenses. As for BD patients, a set of five immature defenses have been identified as specificities, alongside lower frequencies in mature, obsessional and neurotic defenses. Their links with therapeutic outcome need to be clarified on a larger sample. We hypothesize a two-fold vulnerability result in BD patients - depression- and personality-related defensive vulnerability - due to heightened levels of action, borderline and narcissistic defenses.

These results are inspiring for psychodynamic treatment of BD patients (see also the case reports by Deitz, 1995; Jackson, 1993; Kahn, 1993; Salzman, 1998). Especially the concept of the double defense vulnerability might help the clinician to be more attentive to defensive processes in BD patients, in particular to be attentive to narcissistic defenses on the one hand and to borderline on the other. The presence of immature defenses warrants specific psychotherapeutic interventions, such as supportive techniques and early-in-process defense interpretation, in order to increase the awareness in the patient of his or her way of functioning and its effects (see Perry, 1993a and Siefert et al., 2006, for specific therapeutic attitudes as a function of the patient's predominant defensive level). These defenses tend to hinder the construction of a positive therapeutic alliance (Coughlin Della Silva, 1996); their early working-through seems, therefore, of paramount importance in the process of psychodynamic psychotherapy with BD patients (see also Yeomans, Clarkin, & Kernberg, 2002).

There are several limitations to this study. We did not have any formal reliability of the criterian group, i.e. BD diagnosis, however, we established clinical reliability for the diagnosis and formal reliability on the level of the depressive and manic symptoms. Co-morbidity in the patient sample reduces somewhat the internal validity of the trial. Moreover, subthreshold symptom level in patients (the means on MADRS and especially BRMS were

below the clinical cut-off at the moment of the dynamic interview) does not allow generalization to severe levels of BD symptomatology; we observed that high levels of manic symptoms - which occurred in two excluded patients - impede the feasibility of the interview technique used for the study. Therefore, the low symptom level may be understood as the pay-off of the feasibility of the study. Participants in the control group were not randomly chosen due to matching criteria and the voluntary status of participation and, thus, their defensive profiles are not representative of the general population; great care with generalizations need to be applied. Finally, psychotic defenses (or level of defensive dysregulation, Perry, 1993a; see also Piasentin, Vigano, Azzone, Verga, & Freni, 2001) are not assessed by the methodologies used, even if patients with Bipolar I Affective Disorder do present such defenses, associated with momentarily inaccurate reality testing (Baruch, 1997).

REFERENCES

Ablon, S. L., Carlson, G. A., & Goodwin, F. K. (1974). Ego defenses patterns in manic-depressive illness. *American Journal of Psychiatry*, *131*(7), 803-807.

Altman, E. (2004). Differential Diagnosis and Assessment of adult bipolar disorder. In S. L. Johnson, & R. L. Leahy (Eds.), *Psychological Treatment of Bipolar Disorder* (pp. 35-57). New York: The Guilford Press.

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders (4th Edition).* Washington, D. C.: Author.

Angel, A. (1934). Einige Bemerkungen über den Optimismus [Some considerations on Optimism]. *Internationale Zeitschrift für Psychoanalyse*, *20*, 191-199.

Baruch, G. (1997). The manic defence in analysis: the creation of a false narrative. *International Journal of Psycho-Analysis, 78*, 549-559.

Battegay, R. (1987). Psychoanalytische Aspekte der Depression, unter Einbezug der Manie[Psychoanalytic Aspects of Depression, including Mania]. *Zeitschrift für Psychosomatische Medizin und Psychoanalyse, 33*(2), 171-190.

Battista, J. R. (1982). Empirical test of Vaillant's hierarchy of ego functions. *American Journal of Psychiatry, 139*, 356-357.

Bech, P. (2002). The Bech-Rafaelson Mania Scale in clinical trials of therapies for bipolar disorder: A 20-year review of its use as an outcome measure. *CNS Drugs, 16*, 47-63.

Bech, P., Rafaelson, O. J., Kramp, P., & Bolweg, T. G. (1978). The mania rating scale: Scale construction and inter-observer agreement. *Neuropharmacology, 17*, 430-431.

Bond, M., Gardner, S. T., Christian, J., & Sigal, J. J. (1983). An empirically validated hierarchy of defense mechanisms. *Archives of General Psychiatry, 40*, 333-338.

Bond, M., Perry, J. C., Gautier, M., Goldenberg, M., Oppenheimer, U., & Simand, J. (1989). Validating the self-report of defense styles. *Journal of Personality Disorders, 3*, 101-112.

Bond, M., Trijsburg, R. W., & Drapeau, M. (2003). *Defense Style Questionnaire – 60. Unpublished manuscript.* Montreal: Institute of Community and Family Psychiatry, McGill University.

Bordin, E. S. (1975, August). *The working alliance: Basis for a general theory of psychotherapy.* Paper presented at the Meeting of the Society for Psychotherapy Research, Washington, D.C.

Chambon, O., Poncet, F., & Kiss, L. (1989). *Echelles d'anxiété, de manie, de dépression, de schizophrénie[Scales for Assessment of Anxiety, Mania, Depression, Schizophrenia]*. Paris : Masson.

Clifford, W., & Scott, M. (1966). The mutually defensive roles of depression and mania. *Canadian Psychiatric Association Journal, 11*(Suppl.), 267-274.

Cooper, S. H. (1998). Changing Notions of Defense Within Psychoanalytic Theory. *Journal of Personality, 66*(6), 947-964.

Corbière, M., Bisson, J., Lauzon, S., & Richard, N. (2006). Factorial validation of a French short-form of the Working Alliance Inventory. *International Journal of Methods in Psychiatric Research, 15*(1), 36-45.

Corruble, E., Bronnec, M., Falissard, B., & Hardy, P. (2004). Defense styles in depressed suicide attempters. *Psychiatry and Clinical Neurosciences, 58*, 285-288.

Coughlin Della Silva, P. (1996). *Intensive Short-Term Dynamic Psychotherapy. Theory and Technique.* New York: Wiley.

Cramer, P. (1998). Defensiveness and Defense Mechanisms. *Journal of Personality, 66*(6), 879-894.

Cramer, P. (2000). Defense Mechanisms in Psychology today. Further Processes of Adaptation. *American Psychologist, 55*(6), 637-646.

Deitz, I. (1995). The self-psychological approach to the bipolar spectrum disorders. *Journal of American Academy of Psychoanalysis, 23*, 475-492.

Derogatis, L. R. (1994). *Symptom Checklist-90-Revised : Administration scoring and procedures Manual (3rd Edition)*. Minneapolis MN: National Computers Systems.

Despland, J.-N., Drapeau, M., & de Roten, Y. (2001). Les méchanismes de défense: une pluralité de points de vue[Defense Mechanisms : multiple perspectives]. *Psychothérapies, 21*(3), 113-121.

Deutsch, H. (1933). Psychologie der manisch-depressiven Zustände insbesondere der chronischen Hypomanie[Psychology of manic-depressiv States, in particular of chronic Hypomania]. *Internationale Zeitschrift für Psychoanalyse, 19*, 358-371.

Drapeau, M., de Roten, Y., Perry, J. C., & Despland, J.-N. (2003). A Study of Stability and Change in Defense Mechanisms during a Brief Psychodynamic Investigation. *The Journal of Nervous and Mental Disease, 191*(8), 496-502.

First, M. B., Spitzer, R. L., Williams, J. B. W., & Gibbons, M. (2004). *Structured Clinical Interview for DSM-IV*. New York: Biometrics Research Dpt.

Fowler, J. C., & Perry, J. C. (2005). Clinical tasks of the dynamic interview. *Psychiatry : Interpersonal and Biological Processes, 68*(4), 316-336.

Freud, A. (1936). *Das Ich und die Abwehrmechanismen[The Ego and the Mechanisms of Defence]*. Wien: Internationaler Psychoanalytischer Verlag.

Freud, S. (1914). On the history of the psychoanalytic movement. *Standard Edition XIV*, 7-66.

Freud, S. (1926/1968). *Inhibition, symptôme et angoisse[Inhibition, Symptom and Fear]*. Paris : PUF.

Freud, S. (1894/1962). The neuro-psychoses of defense. In J. Strachey (Ed. & Trans.), *The standard edition of the complete works of Sigmund Freud* (Vol. 3, pp. 43-61). London: Hogarth Press.

Fromm-Reichmann, F. (1949). Intensive psychotherapy for manic-depressives: A preliminary report. *Confina neurologica, 9,* 158-165.

Gaston, A. M., Marmar, C. R., Thompson, L. W., & Gallagher, D. (1988). Alliance prediction of outcome beyond in-treatment symptomatic change as psychotherapy progresses. *Psychotherapy Research, 1*, 104-112.

Gilliéron, E. (2004). *Le premier entretien en psychothérapie[The First Interview in Psychotherapy]*. Paris: Dunod.

Hartmann, H. (1958/1992). *Ego Psychology and the Problem of Adaptation. Thirteenth Edition*. Madison CT: International Universities Press.

Hartmann, H., Kris, E., & Loewenstein, R. (1964). *Papers on psychoanalytic psychology: Psychological issues* (Monograph 14). New York: International Universities Press.

Hersoug, A. G., Bogwald, K. P., & Hoglend, P. (2003). Are patient and therapist characteristics associated with therapists' use of defense interpretations in brief dynamic psychotherapy. *Clinical Psychology and Psychotherapy, 10*, 209-219.

Hersoug, A. G., Sexton, H. C., & Hoglend, P. (2002). Contribution of Defensive Functioning to the Quality of Working Alliance and Psychotherapy Outcome. *American Journal of Psychotherapy, 56*(4), 539-554.

Hilsenroth, M. J., Callahan, K. L., & Eudell, E. M. (2003). Further Reliability, Convergent and Discriminant Validity of Overall Defensive Functioning. *Journal of Nervous and Mental Disease, 191*(11), 730-737.

Hoglend, P., & Perry, J. C. (1998). Defensive functioning predicts improvement in major depressive episodes. *Journal of Nervous and Mental Disease, 186*, 1-7.

Horvath, A. O., (1981). *An exploratory study of the working alliance: Its measurement and relationship to therapy outcome.* Unpublished doctoral dissertation. University of British Columbia, Canada.

Horvath, A. O. (1994). Empirical validation of Bordin's pantheoretical model of the alliance: The Working Alliance Inventory perspective. In A. O. Horvath & L. S. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 109-130). New York: John Wiley.

Horvath, A. O., & Greenberg, L. S. (1989). The development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology, 36*, 223-233.

Jackson, M. (1993). Manic-depressive psychosis: psychopathology and individual psychotherapy within a psychodynamic milieu. *Psychoanalytic Psychotherapy, 7*, 103-133.

Jacobson, A. M., Beardslee, W., Hauser, S. T., Noam, G. G., Powers, S. I., Houlihan, J., & Rider, E. (1986). Evaluating ego defense mechanisms using clinical interviews: An empirical study of adolescent diabetic and psychiatric patients. *Journal of Adolescence, 9*, 303-319.

Jones, S. (2004). Psychotherapy of Bipolar Disorder: a review. *Journal of Affective Disorders, 80*, 101-114.

Kahn, D. A. (1993). The use of psychodynamic psychotherapy in manic depressive illness. *Journal of the American Academy of Psychoanalysis, 21*, 441-455.

Kearns, N. P., Cruickshank, C. A., McGuigan, K. J., Riley, S. A., Shaw, S. P., & Snaith, R. P. (1982). A comparison of depression rating scales. *British Journal of Psychiatry, 141*, 45-49.

Kernberg, O. F. (1975). *Borderline conditions and pathological narcissism.* New York : Jason Aronson.

Klein, M. (1935). A contribution to the psychogenesis of manic-depressive states. *International Journal of Psychoanalysis, 16*, 145-174.

Kohut, H. (1984). *How does analysis cure?* Chicago: University of Chicago Press.

Labouvie-Vief, G., Hakim-Larson, J., & Hobart, C. J. (1987). Age, Ego level, and the Life-Span Development of Coping and Defense Processes. *Psychology and Aging, 2*(3), 286-293.

Lemperière, T., Lepine, J. P., Rouillon, F., Hardy, P., Ades, J., Luauté, J. P., & Ferrand, I. (1984). Comparaison de différents instruments d'évaluation de la dépression à l'occasion d'une étude sur l'ATHYMIL 30 mg. *Annales Médico-Psychologiques, 142*, 1206-1212.

Levenson, E. (1993). Shoot the messenger: Interpersonal aspects of the analyst's interpretations. *Contemporary Psychoanalysis, 29*, 383-396.

Lewin, B. (1932). Analysis and structure of a transient hypomania. *Psychoanalysis Quarterly, 1*, 43-58.

Maier, W., & Philipp, M. (1985). Comparative analysis of observer depression scales. *Acta Psychiatrica scandinavica, 72*, 239-245.

Malinckrodt, B., & Nelson, M. L. (1991). Counselor training level and the formation of the psychotherapeutic working alliance. *Journal of Counseling Psychology, 38*, 133-138.

Mergenthaler, E., & Stigler, M. (1997). Règles de transcription pour la recherche en psychothérapie (adaptation française)[Transribing rules for Psychotherapy Research (French adaptation)]. *Psychothérapies, 17*(2), 97-103.

Modell, A. (1975). A narcissistic defense against affects and the illusion of self-sufficiency. *International Journal of Psychoanalysis, 56*, 275-282.

Montgomery, S. A., & Asberg, M. (1979). A new depression scale designed to be sensitive to change. *British Journal of Psychiatry, 134*, 382-389.

Pariente, P., & Guelfi, J. D. (1990). Inventaires d'auto-évaluation de la psychopathologie chez l'adulte. 1ère partie : Inventaires multidimensionnels[Self-Report Inventories of Adult Psychopathologie. 1st part : Multidimensional Inventories] . *Psychiatrie Psychobiologique, 5*, 49-63.

Pellet, J., Decrat, M., Lang, F., Chazot, L., Tatu, P., Blanchon, Y., Berlier, J. M. (1987). Description d'un échantillon de 300 échelles MADRS portant sur les sujets déprimés[Description of a sample of 300 MADRS scales on depressed subjects]. *Annales Médico-Psychologiques, 145*, 170-175.

Perry, J. C. (1988). A prospective study of life stress, defenses, psychotic symptoms, and depression in borderline and antisocial personaliy disorders and bipolar type II affective disorder. *Journal of Personality Disorders, 2*, 49-59.

Perry, J. C. (1990a). *Defense Mechanism Rating Scale.* Boston: Cambridge Hospital-Harvard Medical School.

Perry, J. C. (1990b). Psychological defense mechanisms in the study of affective and anxiety disorders. In J. Maser, & C. R. Cloninger (Eds.), *Co-morbidity in anxiety and mood disorders* (pp. 545-562). Washington, D. C.: American Psychiatric Press.

Perry, J. C. (1993a). Defenses and their Effects. In N. Miller, L. Luborsky, J. Docherty, & J. Barber (Eds.), *Psychodynamic Treatment Research: A Handbook for Clinical Practice*(pp.274-305). New York: Basic Books.

Perry, J. C. (1993b, September). *A guided Clinical Interview to Assess Axis II Disorders.* Paper presented at the third Congress of the International Society for the Study of Personality Disorders. Cambridge, Mass.

Perry, J. C. (1995). *A pilot study of defenses in long-term dynamic psychotherapy of personality disorders.* Paper presented at the 4th International Congress on the Disorders of Personality. Dublin: Trinity College.

Perry, J. C. (1996). Defense Mechanisms in impulsive versus obsessive-compulsive disorders. In J. Oldham, & A. E. Skodol (Eds.), *Impulsive versus obsessive-compulsive disorders* (pp. 195-230). Washington, D. C.: American Psychiatric Press.

Perry, J. C., & Cooper, S. H. (1986). A preliminary report on defenses and conflicts associated with borderline personality disorder. *Journal of the American Psychoanalytic Association, 34*, 865-895.

Perry, J. C., & Cooper, S. H. (1989). An empirical study of defense mechanisms I : Clinical Interview and life vignette ratings. *Archives of General Psychiatry, 46*, 444-452.

Perry, J. C., Fowler, J. C., & Semeniuk, T. T. (2005). An investigation of tasks and techniques associated with dynamic interview adequacy. *Journal of Nervous and Mental Disease, 193*(2), 136-139.

Perry, J. C., Guelfi, J.-D., Despland, J.-N., Hanin, B. (2004). *Echelles d'évaluation des mécanismes de défense[Defense Mechanisms Rating Scales]*. Paris. Masson.

Perry, J. C., & Hoglend, P. (1998). Convergent and Discriminant Validity of Overall Defensive Functioning. *The Journal of Nervous and Mental Disease, 186*, 529-535.

Perry, J. C., Hoglend, P., Shear, K., Vaillant, G. E., Horowitz, M. J., Kardos, M. E., Bille, H., & Kagan, D. (1998). Field Trial of a Diagnostic Axis for Defense Mechanisms for DSM-IV. *Journal of Personality Disorders, 12*, 1-13.

Perry, J. C., & Ianni, F. F. (1998). Observer-Rated Measures of Defense Mechanisms. *Journal of Personality, 66*(6), 993-1024.

Piasentin, V., Vigano, D., Azzone, P., Verga, M., Freni, S. (2001). Proposal for a rating scale for psychotic defense mechanisms. *Ricerca in Psicoterapia, 4*(2-3), 126-161.

Salzman, C. (1998). Integrating pharmacotherapy and psychotherapy in the treatment of a bipolar patient. *American Journal of Psychiatry, 155*, 686-688.

Sandler, J. (1976). Countertransference and role-responsiveness. *International Review of Psychoanalysis, 3*, 43-47.

Schafer, R. (1968). Mechanisms of defense. *International Journal of Psychoanalyis, 49*, 49-62.

Semrad, E. (1967). The organization of ego defenses and object loss. In D. M. Moriarity (Ed.), *The loss of loved ones* (pp. 126-134). Springfield, IL: Charles C. Thomas.

Shick Tryon, G., & Kane, A. S. (1993). Relationship of working alliance to mutual and unilateral termination. *Journal of Counseling Psychology, 40*, 33-36.

Siefert, C. J., Hilsenroth, M. J., Weinberger, J., Blagys, M. D., & Ackerman, S. J. (2006). The Relationship of Patient Defensive Functioning and Alliance with Therapist Technique during Short-Term Psychodynamic Psychotherapy. *Clinical Psychology and Psychotherapy, 13*, 20-33.

Sjöbäck, H. (1973). *The Psychoanalytic Theory of Defensive Processes. A Critical Survey.* New York: John Wiley.

Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.

Tabachnick, B. G., & Fidell, L. (1996). *Using Multivariate Statistics. Third Edition*. NY: Harpercollins College Publishers.

Thygesen, K. L., Drapeau, M., Trijsburg, W. R., Lecours, S., & de Roten, Y. (submitted). The Defense Style Questionnaire-60 (DSQ-60): Factor structure and psychometric properties in a non patient population.

Thygesen, K. L., Hunter, W., Lecours, S., Trijsburg, W., & Drapeau, M. (2005). Cultural Variability in Defensive Functioning amongst French- and English-Canadians using the Defense Style Questionnaire – 60. *Annual Meeting of The Society for Psychotherapy Research,* Montreal, June 2005.

Tichenor, V., & Hill, C. E. (1989). Alliance. *Psychotherapy, 26,* 195-199.

Tracey, T. J., Kokotovic, A. M. (1989). Factor Structure of the Working Alliance Inventory. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 1*(3), 207-210.

Trijsburg, W. R., Bond, M., Drapeau, M., Thygesen, K., & de Roten, Y. (2005). The Defense Style Questionnaire (DSQ-60): shorter but improved. *Annual Meeting of The Society for Psychotherapy Research,* Montreal, June 2005**.**

Vaillant, G. E. (1971). Theoretical hierarchy of adaptive ego mechanisms. *Archives of General Psychiatry, 24*, 107-118.

Vaillant, G. E. (1976). Natural history of male psychological health : The relation of choice of ego mechanisms of defense to adult adjustment. *Archives of General Psychiatry, 33,* 535-545.

Vaillant, G. E., Drake, R. E. (1985). Maturity of ego defenses in relation to DSM-III Axis II personality disorder. *Archives of General Psychiatry, 42,* 597-601.

Wallerstein, R. S. (1967). Development and metapsychology of the defensive organization of the ego. Panel report. *Journal of the American Psychoanalytic Association, 15,* 130-149.

Whitty, M. T. (2003). Coping and defending: age differences in maturity of defence mechanisms and coping strategies. *Aging and Mental Health, 7*(2), 123-132.

Winnicott, D. W. (1935/1958). The manic defence. In *Collected Papers* (pp. 129-144). London: Tavistock Publications.

Winnicott, D. W. (1965). Ego distortion in terms of true and false self. In *Maturational processes and the facilitating environment* (pp. 140-152). New York: International Universities Press.

Wirtz, M., & Caspar, F. (2002). *Beurteilerübereinstimmung und Beurteilerreliabilität[Inter-rater accordance and inter-rater reliability]*. Göttingen: Hogrefe.

Yeomans, F. E., Clarkin, J. F., & Kernberg, O. F. (2002). *A primer of Transference-focused Psychotherapy for the Borderline Patient*. Northvale, N.J. : Jason Aronson Inc.

Table 1

Socio-Demographics and Symptoms for Patients and Controls

	Patients (N = 30)		Controls (N = 30)			
Criteria	Mean	SD	Mean	SD	$T(1,58)$	p
Age	46.14	11.20	41.90	14.33	1.28	.12
Training (N Years)	12.37	1.07	12.87	1.42	-1.59	.21
Gender (Female)	67%		67%			
Intimate relationship[1]	37%		40%			
Life situation						
With partner	30%		30%			
With partner & siblings	3%		7%			
Alone	43%		40%			
Alone with siblings	10%		10%			
With parents	7%		13%			
Institution	7%		0%			
WAI	63.04	13.96				
GSI	1.24	0.87	0.48	0.23	4.47	.00
Mania (BRMS)	3.10	2.94				
Depression (MADRS)	12.87	10.40				

Note. WAI: Working Alliance Inventory; GSI : Global Severity Index of Symptom Checklist SCL-90-R

[1]Considered as stable intimate relationship when lasting longer than 2 years

Table 2

Reliability results DMRS

Case	Rater	ICC (2, 1)
1	A	.78
2	A	.81
3	B	.89
4	C	.64
5	C	.70
6	B	.85
7	A	.78
8	A	.85
9	C	.95
10	B	.86
11	D	.88
12	E	.85
13	D	.95
14	A	.79
15	E	.83
16	F	.95
17	E	.94
18	C	.87
19	E	.73
20	E	.94
21	E	.81

Note. ICC (2, 1) on 28 singular defenses

Table 3

Defense Specificities in Bipolar Affective Disorder (*N* = 30)

Defense	Patients		Controls		*F* (1, 58)	*ES*
	M	SD	M	SD		
DMRS						
Number of defenses	32.77	9.32	31.20	10.12	0.39	0.16
ODF	3.77	0.38	4.80	0.57	67.36**	2.13
Mature	4.70	6.10	21.89	12.17	47.83**	1.79
Obsessional	14.12	9.38	25.20	12.29	15.42**	1.02
Neurotic	11.68	11.10	8.00	4.80	2.79	0.43
Narcissistic	18.94	12.91	12.84	8.73	4.59**	0.55
Disavowal	33.36	9.24	24.43	8.50	15.21**	1.01
Borderline	8.06	6.87	3.03	4.69	10.98**	0.86
Action	9.14	6.40	4.61	5.42	8.78**	0.76

Note. MANOVA: F (7; 52) = 10.43; p = .00; DMRS: Defense Mechanism Rating Scales; ODF: Overall Defensive Functioning

* $p < .05$; ** $p < .01$

Table 3

Regression Analyses for Immature Defenses predicting Manic Symptoms (N = 30)

Variable	*B*	*SE B*	*β*
Narcissistic:			
Omnipotence	0.11	0.05	.36*
Idealization	-0.02	0.10	-.03
Devaluation	0.22	0.09	.40*
Disavowal:			
Denial	-0.12	0.09	-.29
Projection	-0.20	0.15	-.29
Rationalization	-0.10	0.08	-.27
Autistic Fantasy	-0.37	0.35	-.22
Borderline:			
Splitting other	0.08	0.16	.11
Splitting self	-0.16	0.38	-.09
Proj. Identific.	-0.06	0.13	-.09
Action:			
Acting out	0.04	0.15	.05
Help-rejecting	-0.12	0.22	-.11
Passive-aggress.	-0.10	0.16	-.13

Note. Narcissistic: R^2 = .29; p = .03; Disavowal: R^2 = .13; p = .48; Borderline: R^2 = .02; p = .91; Action: R^2 = .04; p = .80; Bonferroni's correction applied (significance level .05/4)

* $p < .05$