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THE RELATIONSHIP BETWEEN PERSONALITY ORGANIZATION, REFLECTIVE FUNCTIONING, AND PSYCHIATRIC CLASSIFICATION IN BORDERLINE PERSONALITY DISORDER

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Relationships between personality organization, reflective functioning (RF), and the number of Axis I and Axis II disorders were examined. Ninety-two female patients with *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM–IV–TR*) borderline personality disorder (BPD) were administered the Structured Interview of Personality Organization (STIPO), the Adult Attachment Interview for assessment of RF, and the Structured Clinical Interview for *DSM* Disorders. Significant correlations were found between the level of personality organization and the number of Axis I and Axis II diagnoses. In contrast, no association was found between RF and the severity of Axis I and Axis II pathology. RF and level of personality organization were moderately associated. The results indicate that the concept of personality organization is related to the descriptive approach of the *DSM–IV–TR*. The STIPO provides a differentiated picture of the severity of personality pathology and allows di-

mensional ratings of several domains central to personality functioning. The RF findings confirm previous studies indicating impairments of mentalizing capacity in BPD patients. The association between RF and level of personality organization supports both shared and divergent conceptual considerations underlying mentalization and personality organization. Further investigation of the relationship between these structural constructs would shed light on the complex interplay of an individual's capacity to mentalize and the personality structure shaped by identity integration, defense mechanisms, and reality testing. In addition to the psychiatric classification, measurements of RF and personality organization should be considered in psychotherapeutic treatment planning as well as evaluation of therapy response.

Keywords: borderline personality disorder, reflective functioning, mentalization, personality organization, psychic structure

Despite its pragmatic usefulness, the categorical model of personality disorder classification of the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM–IV–TR*; American Psychiatric Association, 2000) has several major limitations: for instance, personality disorder categories are heterogeneous with regard to symptoms and traits, and diagnoses are not stable over time. These have led to proposals for dimensional classifications (Widiger & Simonsen, 2005). Another limitation of the current classification system is the problem of scoring severity in personality disorders (Tyrer, 2005). In addition, the distinction between clinical disorders (Axis I) and personality disorders (Axis II) was questioned, and the need to work toward a more unified model of personality, personality disorders, and clinical disorders was emphasized (Krueger, 2005).

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From a psychodynamic point of view, the investigation of structural aspects of personality is central for diagnostics, treatment planning, and evaluation of treatment response in addition to descriptive diagnostic approaches. The concept of personality organization (Kernberg, 1984, 1996) and that of mentalization (Fonagy, Gergely, Jurist, & Target, 2002; Fonagy & Target, 1996) represent two approaches to this investigation. Two interviews are currently available for the assessment of these domains: the Structured Interview for Personality Organization (STIPO; Clarkin, Caligor, Stern, & Kernberg, 2004), a novel instrument for the assessment of personality structure; and the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) for the assessment of reflective functioning (RF; Fonagy, Target, Steele, & Steele, 1998).

The aim of the present study was to investigate the relationship between these two structural constructs and phenomenological diagnoses.

Concept and Assessment of Personality Organization

Kernberg (1980, 1984, 1996) developed a theory-driven approach to the study of personality disorders based on the integration of object-relations theories and ego psychology. Kernberg's model of early development indicates that from childhood on, relationships are internalized as mental representations of self–object interactions laden with cognitive, affective, and experimental information about the self, the objects, and their interaction. Personality development depends on the progressive differentiation between self and object representations and an increasing integration of their bad and good aspects. Intense aggressive impulses, due to either constitutional or environmental factors and the relative weakness of ego structures, can compromise the development of the internal representations, resulting in psychopathology and personality disturbances. Symptoms of borderline personality disorder (BDP) represent the unresolved conflict of integration of disparate (all good and all bad) representations of self and others, resulting in the predominance of developmentally early defenses. In Kernberg's view, this is an unconscious attempt of the borderline individual to separate contradictory images of self and others to protect positive images from being overwhelmed by negative ones. However, such splitting may lead to further affective instability, identity disturbances, and deficits in social reality testing.

Kernberg (1981, 1984) developed the Structural Interview as a clinical tool for the assessment of personality organization based on the examination of three key ego functions: identity formation, defenses, and reality testing. This triad determines the structural diagnosis, which reflects subjects' experience of their inner and outer worlds and has behavioral correlates as well. Subjects can be assessed across the range of normal/neurotic, borderline, and psychotic personality organization. The Structural Interview allows trained clinicians to use their accumulated clinical knowledge and intuition to take the interview into targeted areas.

Subsequently, the STIPO (Clarkin et al., 2004) was developed as a standardized instrument to operationalize the assessment of psychic structure and structural change. As a semistructured interview, it yields a more refined assessment of the level of personality organization (normal, neurotic 1, neurotic 2, borderline 1 to borderline 3) and a rating of several domains central to personality functioning (identity consolidation, quality of object relations, use of advanced or primitive defenses, nature of reality testing and perceptual distortions, quality of aggression, and moral values).

The German version of the STIPO has recently been employed in several clinical studies. The study by Hörz et al. (2010) revealed a correlation between low levels of

personality organization and clinical severity in BPD patients. Walter et al. (2009) investigated the negative affects and identity disturbance in patients with BPD and patients without personality disorder using the STIPO. A study of psychic structure and psychiatric comorbidity in chronic pain patients has shown high prevalence of borderline personality organization and a correlation of the level of personality organization impairment and the number of Axis I and Axis II diagnoses in a secondary/tertiary clinical sample (Fischer-Kern et al., 2010). Recently, the STIPO was administered as a measure of change in psychotherapy for the first time. In a randomized control trial comparing transference-focused psychotherapy (TFP) and treatment by experienced community psychotherapists, TFP was shown to yield significantly superior results in the domain of personality organization after 1 year of treatment (Doering et al., 2010).

Concept and Assessment of Mentalization

Over the past decade, mentalization has become a central theoretical concept for the understanding of personality development and the treatment of BPD. Fonagy and colleagues coined the term *mentalization* to describe an individual's implicit and explicit interpretation of his or her own and others' actions as meaningful on the basis of intentional mental states such as personal desires, needs, feelings, beliefs, and reasons (Fonagy et al., 2002; Fonagy & Target, 1996). Although conceptually derivative of theory of mind, Fonagy's concept of mentalization is concerned more with the complex affective and interpersonal understanding of oneself and others, reflecting abilities that enable an individual not only to navigate the social world effectively but also to develop an enriched, stable sense of self. Mentalization is a developmental achievement dependent on the quality of interpersonal interactions and the emotional relationship between the infant and caregivers. The caregiver's marked and contingent mirroring of the child's internal states facilitates the child's development of a capacity to mentalize. Deviations from this normal developmental path are hypothesized to result in severe forms of adult psychopathology, notably BPD (Fonagy et al., 2002). Fonagy and colleagues define BPD as a syndrome organized around an unstable capacity for mentalization characterized by the predominance of immature modes of thinking, that is, the equivalence between appearance and reality ("equivalence mode"), the decoupling of mental states from external reality ("pretend mode"), and the reemergence of the teleological mode of thought. Childhood maltreatment is hypothesized to cause a defensive inhibition of mentalization as a self-projective way of the individual to avoid considering the malicious intents of an abusive or neglecting figure. Alternatively, disorganized attachment can lead to a hypersensitivity to mental states, urging the individual to guess immediately what those around them feel and think in order to preempt further traumatization. In this so-called "hyperactive mentalization," mentalizing is distorted by creating pseudoknowledge, avoiding meanings or connections (Fonagy & Target, 2000). Current evidence links BPD to insecure attachment. In studies of AAI narratives of borderline patients, the classification of *preoccupied* was most frequently assigned (Fonagy et al., 1996), and within this, the *confused*, *fearful*, and *overwhelmed* subclassifications appeared to be most common (Patrick, Hobson, Castle, Howard, & Maughan, 1994). Borderline patients also tend to be unresolved with regard to their experience of trauma or abuse (Fonagy et al., 1996; Levy, 2005; Patrick et al., 1994).

Alongside the development of the mentalization concept, its developmental theory, and pathology, Fonagy and colleagues constructed an operationalized measure of men-

talization, the Reflective Functioning (RF) Scale (Fonagy et al., 1998). Based on Main's pioneering work on attachment-related metacognitive capacities (Main, Kaplan, & Cassidy, 1985), the instrument is employed for a global rating of the quality of mentalizing in the specific context of attachment narratives. The characteristics of attachment interviews indicating high RF include awareness of the nature of mental states (such as opaqueness of mental states), explicit effort to tease out mental states underlying behavior, recognition of the developmental aspects of mental states, and awareness of mental states in relation to the interviewer.

Initial research on RF examined the role that parents' mentalizing skills play in their infants' attachment patterns. Insecurely attached parents with high RF were more likely to have securely attached babies than insecurely attached parents with low RF (Fonagy et al., 1995; Fonagy, Steele, Steele, Moran, & Higgitt, 1991). These findings recently have been confirmed by Arnott and Meins (2007). An examination of the interaction of abuse and RF in psychiatric inpatients showed that among patients reporting abuse, those who scored low in RF were more likely to be diagnosed with BPD compared with those who were abused but scored high on RF. Thus, high RF was reported to be a possible buffer against the development of BPD in individuals who have experienced abuse (Fonagy et al., 1996). RF has also been used as a measure of change in psychotherapy. In a randomized control trial comparing dialectical behavior therapy, TFP, and supportive psychotherapy (Clarkin, Levy, Lenzenweger, & Kernberg, 2007), changes in attachment organization, RF, and lack of resolution of trauma and loss were assessed as putative mechanisms of change in psychotherapeutic treatments for BPD patients. Within 1 year, patients treated with TFP demonstrated significant changes in narrative coherence and RF not observed under other treatment conditions. However, no changes in resolution of loss were observed across treatments (Levy et al., 2006).

Literature on RF and psychopathology apart from BPD is sparse. Ward et al. (2001) showed that a low level of RF in patients with anorexia nervosa in comparison to a healthy control group has to be regarded as a vulnerability factor for the development of psychopathology. Rudden, Milrod, Target, Ackerman, and Graf (2006) found that RF in panic disorder patients was not impaired in general but only in the area of understanding their panic-specific symptoms. A recent pilot study showed highly impaired RF in severe chronically depressed inpatients (Fischer-Kern et al., 2008).

Bouchard et al. (2008) investigated the relationship between various measures of mentalization, attachment status, and the severity of Axis I and Axis II pathology. Correlations between the measures of mentalization (RF, mental states, and elaboration of affect) showed that they share some aspects of a core mentalization process and that each illuminates a specific aspect, thus demonstrating the complexity of the construct. RF was shown to be the only mentalization measure associated with attachment status, and all measures were found to be associated with the severity of Axis I and Axis II pathology in a mixed sample of clinical and nonclinical populations. Müller, Kaufbold, Overbeck, and Grabhorn (2006) assessed RF and the structure axis of the operationalized psychodynamic diagnosis (OPD; OPD Task Force, 2001). One of the five axes of the OPD deals with personality structure, which is assessed on six dimensions (self-perception, self-regulation, defense, object perception, communication, and attachment). The OPD concept of "structure" is closely related to Kernberg's model of personality organization. In a semistructured interview, which was oriented in the formal sequence of the OPD interview and supplemented with specific questions of the AAI, the authors found a high positive correlation between the axis "structure" of the OPD and RF in a mixed clinical

sample. However, the power of RF to predict therapy success was largely independent of the structural aspects covered by the OPD.

Objectives

Based on the need to find reliable instruments to assess structural aspects of personality in addition to the descriptive/phenomenological diagnostic approaches, the present study aimed to examine the relationship between personality organization as measured by the STIPO, mentalization assessed by the RF Scale, and psychiatric classification according to *DSM–IV–TR* criteria in a sample of female BPD patients. This is the first study examining the association of RF and STIPO. In contrast to the study of Müller et al. (2006), RF and personality organization were assessed in separate interviews and with the complete version of the AAI. Also for the first time, overlaps between these measures and their associations with Axis I and Axis II comorbidity were investigated in a homogeneous sample of BPD patients.

Based on the conceptual considerations underlying the concept of mentalization and personality organization, we expected an overlap of the STIPO and RF Scale. We hypothesized that in a sample of patients with the primary diagnosis of BPD, those patients with higher impairment of personality organization (i.e., low level of personality organization) would show more deficits in the capacity to mentalize (i.e., low RF). On the assumption that the STIPO and RF Scale measure overall personality functioning as reported in previous studies of the STIPO (Fischer-Kern et al., 2010; Hörz et al., 2010) and RF (Bouchard et al., 2008), we also hypothesized that higher numbers of Axis I and Axis II diagnoses would be associated with poor mentalizing capacity and lower level personality organization.

Method

Participants

Participants were 92 female outpatients included in a randomized control trial comparing TFP and treatment by experienced community psychotherapists for BPD (Doering et al., 2010). Potential study participants were referred from a variety of clinical sources in Vienna (Austria) and Munich (Germany) to be screened for inclusion in the study. Trained interviewers (psychiatrists/psychologists of psychotherapy units) conducted a clinical interview prior to assignment to treatment.

The patients' mean age was 27.7 years ($SD = 7.3$; range: 18–51). Four patients (4%) had no compulsory schooling; 12 (13%) had completed compulsory schooling; 24 (26%) had continued to apprenticeship/vocational school; 38 (41%) had been educated to A-level standard; 10 (11%) had higher academic education; 4 (4%) were still in school.

Diagnostic Measures

Patients were assessed by the German versions of the Structured Interview for *DSM–IV–TR* (SCID-I; Wittchen, Zaudig, & Fydrich, 1997; SCID-II; Fydrich, Renneberg, Schmitz, & Wittchen, 1997). In addition to the BPD diagnosis, patients with a range of comorbid disorders were included. Participants meeting the BPD criteria were excluded only if they met criteria for schizophrenia, bipolar disorder, severe substance abuse, organic pathology, or mental retardation as assessed using the SCID-I.

The STIPO (Clarkin et al., 2004) is a 100-item semistructured interview developed to evaluate the individual's personality organization according to the psychodynamic conceptualization of Kernberg (1984, 1996). Kernberg (1981, 1984) links the diagnosis of personality pathology to identity and identity pathology, the assessment of which constitutes the core of the Structural Interview. A normal, consolidated identity corresponds with the subjective experience of a stable and realistic sense of self and others and forms a fundamental precondition for normal self-esteem, self-enjoyment, the capacity to derive pleasure from work, and an overall zest for life. It is associated with the individual's capacity to experience a broad array of affect dispositions and with the predominance of positive affect states. In contrast, pathological identity formation corresponds with an unstable, polarized, and unrealistic sense of self and others. In this case, poorly modulated and intense negative affects prevail. Identity integration is the most important differential criterion between nonborderline and borderline personality organization according to Kernberg's theory (Kernberg & Caligor, 2005). Patients located within the borderline realm suffer from identity diffusion, manifestations of primitive defenses, and different degrees of superego degeneration.

The STIPO is a semistructured version of Kernberg's (1981, 1984) clinical Structural Interview, assessing the same content domains while providing clearly formulated questions and anchors aiding the scoring process. It examines seven dimensions of personality functioning: identity consolidation, quality of object relations, use of primitive defenses, quality of aggression, adaptive coping versus character rigidity, moral values, and reality testing. Dimensions and corresponding subdimensions are listed in Table 1. In addition to an item-based scoring method, which was examined by Stern and colleagues (2010), the interviewer can complete a clinical rating for each dimension ranging from *absence of pathology* (score of 1) to *very severe pathology* (score of 5) scored on a 5-point scale. These 5-point clinical ratings yield a personality profile that depicts the individual's functioning on the different dimensions. Moreover, an assessment of the level of personality organization is scored on a 6-point scale. By that, subjects can be described as falling within the normal, neurotic (neurotic 1, neurotic 2), or borderline (borderline 1 to 3) level of personality organization. Thus, borderline 1, borderline 2, and borderline 3 represent

Table 1
Structured Interview of Personality Organization Dimensions and Subdimensions

Dimension	Subdimension
1. Identity	Capacity to invest
	Sense of self—coherence and continuity
	Sense of self—self-description
	Representation of others
2. Object relations	Interpersonal relationships
	Intimate relationships and sexuality
	Internal working model of relationships
3. Primitive defenses	
4. Coping and rigidity	
5. Aggression	Self-directed aggression
	Other-directed aggression
6. Moral values	
7. Reality testing	

increasing personality organization pathology across the dimensions of the STIPO. A detailed description of the instrument is given by Hörz (2007). The psychometric qualities of the STIPO have been shown to be adequate to good, with high interrater reliability data for all of the STIPO domains, ranging from .84 to .97, a mean intraclass correlation coefficient of .92, and generally high internal consistency for the seven STIPO domains, with Cronbach's alphas ranging from .63 (Reality Testing) to .92 (Object Relations) and a mean alpha of .83 (Stern et al., 2010).

The AAI (George et al., 1985) is a semistructured clinical interview designed to elicit thoughts, feelings, and memories about early attachment experiences and to assess the individual's state of mind or internal working model with respect to early attachment relationships. The interview consists of 20 questions asked in a set order. Several categories of experience are probed, including the general quality of early child–caregiver relationships and experiences of early separation, illness, rejection, loss, and maltreatment. The interview requires the participants to reflect on their parents' styles of parenting and how their childhood experiences have influenced their lives. On the basis of the audiotaped and verbatim transcription of the AAI, both attachment classification and RF score can be obtained according to coding manuals.

The RF Scale (Fonagy et al., 1998) is an 11-point scale that evaluates the quality of mentalization in the context of the attachment relationship. The RF Scale assesses the interviewee's capacity to understand mental states and readiness to contemplate these in a coherent manner. Raters are required to mark the presence or absence of a reflective stance in relation to self or other with regard to every single passage of the AAI. The frequency and specific character of reflective statements, their plausibility, consistency, complexity, and originality determine the single score. Main emphasis is placed on eight questions of the AAI, the so-called "demand questions." Demand questions in themselves force the interviewee to reflect on his or her own or others' mental states, and the other 12 questions, the so-called "permit questions," permit but do not demand the interviewee to show reflective capacity. The eight demand questions are Closeness, Rejection, Overall Experience, Setback, Why Parents' Behavior, Loss, Changes, and Current Relationship (see Table 2).

According to the guidelines of the manual, the single scores are summed to an overall score on a scale from −1 (*negative RF*, in which interviewees are totally barren or

Table 2
Demand Questions for Reflective Functioning Rating

Category	AAI question
1. Closeness	To which parent did you feel closest as a child?
2. Rejection	Did you ever feel rejected by your parents, even though they might not have meant it or have been aware of it?
3. Overall Experience	How do you think the experiences with your parents have affected your adult personality?
4. Setback	Are there any experiences that you feel were a setback in your development?
5. Why Parents' Behavior	Why do you think your parents behaved as they did during your childhood?
6. Loss	Did you experience the loss of an important person through your childhood?
7. Changes	Have there been many changes in your relationship with your parents since childhood?
8. Current Relationship	What is your relationship to your parents like for you now as an adult?

Note. AAI = Adult Attachment Interview.

rejecting of mentalization, or show evidence of gross distortion of the mental states of others) to 9 (*exceptional RF*, in which subjects show unusually complex, elaborated, and original reasoning about mental states). The midpoint of the scale is 5, or *ordinary RF*, which indicates that individuals hold a model of the mind of others that is fairly coherent, if somewhat one-dimensional, naïve, or simplistic.

Research assistants—either clinical psychologists or medical doctors in psychoanalytical training—received comprehensive interview training and demonstrated satisfactory reliability in administering the three interviews employed (SCID-I and SCID-II, STIPO, AAI). RF raters (M.F.-K., S.T., A.T.) attended a training course and underwent a reliability test at the Anna Freud Centre, London. STIPO interviewers were trained by the respective authors of the English (at Personality Disorders Institute, White Plains, NY) or German version (at University of Innsbruck, Austria) of the instrument and had obtained good interrater reliability. The interrater reliability of RF was $\kappa = 0.79$, and the intraclass correlation coefficient of the STIPO clinical ratings was $r = .75$.

Statistical Analysis

To test correlations between ordinal instrument scales of STIPO, RF, and the number of Axis I and Axis II diagnoses, we applied Spearman rank tests. All analyses were calculated by SPSS software version 14.0, and tests of significance were presented as two-tailed p values at a level of $p < .05$.

Results

SCID-I and SCID-II

The participants had an average of 1.6 recent and 1.8 lifetime Axis I *DSM–IV–TR* diagnoses. Mood disorders (54.3%) and anxiety disorders (34.8%) were the most frequent Axis I diagnoses. On Axis II, patients showed an average of 2.4 diagnoses in addition to their primary BPD diagnosis. Depressive (36.9) and avoidant personality disorders (23.9) were the most prominent Axis II diagnoses (see Table 3).

STIPO

In the assessment of personality organization, 22 patients (23.9%) were diagnosed at the level of borderline 1 (high-level borderline personality organization), 59 patients (64.1%) at the level of borderline 2, and 11 patients (11.9%) at the level of borderline 3 (low-level borderline personality organization). In the dimensional ratings (with a 5-point scale, 1 = *absence of patholog*y to 5 = *severe pathology*), the most severe impairment was found in the dimension of primitive defenses (4.0), followed by the dimensions identity (3.8) and coping and rigidity (3.8; see Table 3).

A significant association between the level of personality organization and number of lifetime Axis I ($r = .317$, $p = .002$) and number of Axis II diagnoses ($r = .285$, $p = .006$) was found. Several dimensions of the STIPO showed significant associations with the number of current Axis I diagnoses (see Table 4).

RF

The mean RF overall score was 2.7. This result was homogeneous across the demand questions of the AAI, with the highest RF in the demand question Rejection (2.9) and the lowest RF in the demand question Setback (2.4; see Table 3).

Table 3
*Results: Current Axes I and II Diagnoses, Structured Interview of Personality Organization (STIPO) Level of Personality Organization and Dimensions, and Reflective Functioning (RF) Single Scores and Overall Score (*N = *92)*

Diagnosis	*n*	%
Axis I (current)		
Mood disorders	50	54.3
Anxiety disorders	32	34.8
Substance-related disorders	11	11.9
Eating disorders	4	4.4
Somatoform disorders	6	6.5
Number of Axis I diagnoses (current)		
0	17	18.5
1	26	28.3
2	35	38.0
3+	14	15.2
Axis II		
Avoidant	22	23.9
Dependent	9	9.7
Obsessive–compulsive	8	8.7
Negativistic	15	16.3
Depressive	34	36.9
Paranoid	18	19.6
Schizotypal	1	1.1
Schizoid	2	2.2
Histrionic	11	11.9
Narcissistic	9	9.8
Number of Axis II diagnoses		
1	28	30.4
2	21	22.8
3+	43	46.7
STIPO level of personality organization		
Borderline 1	22	23.9
Borderline 2	59	64.1
Borderline 3	11	11.9
	M	*SD*
STIPO dimensional rating		
Identity	3.8	0.6
Quality of object relations	3.6	0.6
Primitive defenses	4.0	0.6
Coping and rigidity	3.8	0.7
Aggression	3.4	0.7
Moral values	2.6	0.7
Reality testing	2.5	0.7
RF scores		
Closeness	2.9	1.4
Rejection	2.9	1.5
Overall experience	2.8	1.2
Setback	2.4	1.1
Why Parents' Behavior	2.5	1.3
Changes	2.6	1.1
Losses	2.7	1.8
Overall score	2.7	1.2

Table 4
*Associations of Structured Interview of Personality Organization (STIPO) Dimensional Ratings With Number of Axes I and II Diagnoses and Reflective Functioning (RF) Overall Score (*N = *92)*

STIPO dimension	Current Axis I		Lifetime Axis I		Axis II		RF overall score	
	r	*p*	*r*	*p*	*r*	*p*	*r*	*p*
1. Identity	.163	.121	**.330**	.001	**.415**	.000	.072	.494
A. Capacity to invest	**.237**	.023	**.216**	.039	.210	.045	.001	.995
B. 1. Sense of self—coherence and continuity	.109	.301	**.343**	.001	**.396**	.000	.046	.662
2. Sense of self—self-description	.098	.352	.200	.056	**.487**	.000	.135	.198
C. Representation of others	−.002	.984	.154	.142	.137	.192	.037	.724
2. Quality of object relations	**.211**	.043	**.266**	.011	**.401**	.000	−.079	.452
A. Interpersonal relationships	.144	.170	.146	.164	**.381**	.000	.036	.731
B. Intimate relationships	**.247**	.017	**.286**	.006	.117	.267	−.114	.281
C. Internal working model of relationships	.121	.252	.195	.062	**.420**	.000	.066	.530
3. Primitive defenses	**.270**	.009	**.375**	.000	**.355**	.001	.105	.317
4. Coping and rigidity	**.333**	.001	.164	.118	**.512**	.000	−.138	.190
5. Aggression	.166	.115	**.336**	.001	**.225**	.031	−.086	.413
A. Self-directed aggression	.204	.051	**.325**	.002	.056	.593	−.061	.564
B. Other-directed aggression	.069	.516	**.215**	.039	**.338**	.001	−.147	.163
6. Moral values	.129	.220	**.351**	.001	**.272**	.009	.127	.227
7. Reality testing	.201	.055	**.251**	.016	**.326**	.002	−.112	.286
Overall level of personality organization	.109	.303	**.317**	.002	**.285**	.006	**−.207**	**.048**

Note. Significant Spearman's correlations are marked in bold type at the $p < .05$ level.

No correlation was found between RF overall scores and the number of comorbid Axis I ($r = .143$, $p = .174$) and Axis II ($r = -.039$, $p = .710$) diagnoses.

Relationship Between STIPO and RF

The level of personality organization was correlated with the RF overall score ($r = -.207$, $p = .048$; see Table 4). At the level of RF single scores, the demand question Why Parents' Behavior showed the most significant correlations with the STIPO level of personality organization ($r = -.351$, $p = .001$).

Discussion

The present study investigated the relationship between personality organization, reflective functioning, and psychiatric classification in 92 female borderline patients who participated in a psychotherapy treatment study.

The participants had an average of 1.6 recent and 1.8 lifetime diagnoses on Axis I and an average of 2.4 Axis II diagnoses in addition to their primary BPD diagnosis. This is consistent with previous studies in BPD patients, which found high levels of psychiatric comorbidity on Axes I and II (Critchfield, Clarkin, Levy, & Kernberg, 2008; Skodol et al., 2002). The majority of the patients (64.1%) were diagnosed as medium-level personality organization, and the most severe impairment was found in the dimension of primitive defenses in the STIPO. On the RF Scale, the mean overall score was 2.7. A score of 3 is considered questionable or low and indicates naïve/simplistic or overanalytic/hyperactive

reflections on the mental states of self and others (Fonagy et al., 1998). The RF scores varied between 0 (*negative to absent RF*) and 5 (*ordinary RF*). Marked or exceptional RF above 5 was not found in our sample. This result is in line with the Cassel-Hospital study, where a mean RF of 2.7 in BPD was reported (Fonagy et al., 1996), and consistent with the New York TFP study, where the mean RF in the TFP group was 2.9 at baseline (Levy et al., 2006).

The severity of personality organization impairment corresponded to the number of lifetime Axis I and Axis II disorders. Several dimensions of the STIPO also corresponded to the number of current Axis I diagnoses. Thus, the occurrence of a comorbid mood disorder, anxiety disorder, or eating disorder was correlated with higher impairment in the capacity to invest in work or studies and leisure activities, impairments in intimate relationships, in the use of primitive defense mechanisms, and impairments and rigidity in coping styles. Recent cross-national estimates of personality disorders and comorbidity with *DSM–IV–TR* Axis I disorders suggest that personality disorders often co-occur with Axis I disorders and are associated with significant role impairments beyond those due to comorbidity (Huang et al., 2009). The strong association between personality disorder clusters and Axis I disorders raised the possibility that personality disorders have been somehow arbitrarily separated from Axis I disorders in the *DSM* nomenclature. Inadequate assessment instruments and the absence of adequate conceptualization have been traced to the problematic boundary between personality disorders and Axis I disorders (Widiger, 2003). A psychodynamically oriented model of personality health and pathology may enhance the understanding of how personality disorders and clinical diagnoses are connected to the structure of personality. The advantage of a structural diagnosis lies in bringing together the phenomenological (experience-near) and metapsychological or structural (experience-distant) levels of descriptions. The STIPO contains two types of questions: (a) those regarding descriptive features (e.g., regular and significant interpersonal conflict, inability to direct consistent and productive energy and attention toward work); and (b) those focusing on more subtle, intrapsychic experience (e.g., dramatic shifts in the experience or perception of self or other, descriptions of self or other that lack a sense of depth and reality). By exploring both the patient's behavioral world and inner world, the STIPO encompasses a polysymptomatic picture as well as a particular structural organization of the personality. The STIPO contributes to proposals for a more unified model of personality, personality disorders, and clinical disorders (Krueger, 2005) and to proposals for dimensional classifications (Widiger & Simonsen, 2005). Addressing the question of severity in the classification of personality disorder (Tyrer, 2005), the STIPO represents the first structured and operationalized approach toward a refined assessment by differentiating six levels of personality organization, which have been demonstrated to correlate significantly with Axes I and II comorbidities. This finding emphasizes the importance of personality structure as an indicator of severity of personality disturbance and, thus, differentiated treatment planning as well as evaluation of treatment response.

In contrast, impairment in mentalizing capacity did not correspond with the number of Axis I and the number of comorbid Axis II diagnoses in our sample of BPD patients. A previous study, however, showed lower levels of mentalization to be significantly associated with the severity of both Axis I and Axis II pathology in a heterogeneous clinical and nonclinical sample (Bouchard et al., 2008). The homogeneity of our study sample may account for the lack of correlations between RF overall scores and Axis I and Axis II comorbidity.

A moderate association was found between personality organization and mentalization. In the study of Müller et al. (2006), the correlation between overall structural level and RF was stronger. However, in that study, RF and psychic structure were assessed in a single interview with a short version of the AAI consisting of five questions built into

the OPD interview. Thus, the interview procedure and selection of the questions may explain these different levels of interrelation.

In the present study, the correlation between RF and STIPO was based on the demand question Why Parents' Behavior. Thus, borderline patients with a high level of personality organization showed significantly higher reflective capacity in answering the question on their personal beliefs about why their parents behaved the way they did. The capacity to reflect on the caregivers' mental states seems to discriminate well between high-, medium-, and low-level personality organization. According to Fonagy's theory of BPD, unstable mentalizing is linked to insecure attachment rooted in problematic parent–child interactions. In turn, mentalizing impairments play a dominant role in affect regulation, effortful control, and social cognition. In contrast, mentalizing capacity is assumed to be protective against the development of psychopathology in individuals with problematic childhood experiences. Our finding that patients who were able to mentalize their caregivers' behavior with a multifaceted model of the caregivers' mental state showed higher levels of personality organization is in agreement with the BPD theory of Fonagy.

The moderate association between overall RF score and the STIPO level of personality organization supports the hypothesis that mentalization and personality organization are overlapping constructs. Both concepts cover structural aspects of personality functioning, but they are not the same, either in terms of content or the way they are assessed. RF depicts a specific structural aspect of the personality, namely the capacity of the individual to become conscious of his or her own intentions, wishes, thoughts, and feelings, and to perceive others as beings with intentions and feelings. On the other hand, personality organization is a broader construct, which, in addition to covering aspects of self- and object perception, includes dimensions like defenses, coping, moral values, and reality testing. Whereas the investigation of the individual's mentalizing capacity is placed in the context of attachment narratives, the interview procedure of the STIPO focuses on the investigation of important domains of personality functioning both in the individual's report of his present life and in the way he or she presents during the interview.

The recent form of the coding system of the RF Scale does not facilitate a detailed examination of the relationship of the measurements RF and STIPO. Although the capacity assessed by the RF Scale is multidimensional, the rating is done using a single score that cannot be subjected to factor analysis (Choi-Kain & Gunderson, 2008).

Further investigation of the relationship between these two structural constructs can shed light on the complex interplay of an individual's capacity to mentalize and the personality structure shaped by identity integration, defense mechanisms, and reality testing. In addition to the psychiatric classification, the measurements of RF and personality organization should be considered in the psychotherapeutic treatment planning as well as the evaluation of therapy response.

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