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A comparative study of patients and therapists' reports of schema modes

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ABSTRACT

The current study assesses whether patients and therapists report similar levels of schema modes, one of the central features in Schema-Focused Therapy. Patient's self-report and therapists' report on an abbreviated Schema Mode Inventory were compared in a sample of 92 patients with antisocial, borderline or cluster C personality disorder. Results indicate a markedly stronger self-therapist discrepancy in mode rating in antisocial patients than in borderline and cluster C patients. Compared to their therapists, ASPD-patients report less presence of most maladaptive modes, whereas there was no difference in adaptive modes. These findings underscore the importance for the use of alternative assessment methods of cognitive concepts in antisocial patients.

1. Introduction

Next to persistent antisocial behaviour, one of the main features of antisocial personality disorder (ASPD) is deceitfulness as manifested in repeated lying (American Psychiatric Association, 2005). Additionally, antisocial patients are characterized by defensive responding (de Ruiter & Greeven, 2000) and a tendency to over-report healthy behaviour (Cima, 2003). This response style of antisocial patients forms a major problem because it diminishes the reliability of their self-report, which has negative effects for both therapy and the reliability of research. It has also caused several authors to advise against the use of self-report inventories with forensic subjects (Gacono & Meloy, 1994; Hare, 1991) and probably contributed to this patient group being viewed as therapy-resistant (Harris & Rice, 2006).

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One possible way to circumvent the denying response style of antisocial patients is by using alternative sources of information than self-report. Since the therapeutic relationship is considered a useful context for assessing key dysfunctional beliefs (Beck et al., 2001), this study compares self-report by patients with ASPD, borderline personality disorder (BPD) and cluster C personality disorder (ClC-PD) with reports by these patients' therapists. This way, it can be assessed whether the discrepancy between patients and therapists is specific for patients with an ASPD as compared to other PD patients.

We asked patients and therapists to rate schema modes, one of the central concepts of Schema-Focused Therapy (SFT, Young, Klosko, & Weishaar, 2003). Schema modes reflect state-depending clusters of thoughts, feelings and behaviours. Recently, it was demonstrated that SFT was highly effective in treating borderline patients (Giesen-Bloo et al., 2006). Furthermore, SFT is becoming increasingly implemented within forensic treatment settings (Bernstein, Arntz, & de Vos, 2007). Modes can be adaptive or maladaptive. Until now, 14 different schema modes have been identified that can be clustered into four categories; first, maladaptive child modes that result out of unmet core childhood needs, second, dysfunctional coping modes that correspondent to an overuse of the fight, flight or freeze coping styles and third, dysfunctional parent modes that reflect behaviour of the patients' parent(s) towards the patient as a child that the patient has internalized. Fourth, there are two healthy modes; that of the Healthy and that of the Happy Child (for an overview of the modes, see Lobbestael, van Vreeswijk, & Arntz, 2008).

A previous study (Lobbestael, Arntz, & Sieswerda, 2005) already raised questions about the reliability of self-reported schema modes in antisocial patients because these patients indicated very high levels of healthy modes that even did not differ significantly from non-patient controls, and surprisingly low maladaptive modes. In another study (Lobbestael et al., 2008), ASPD was negatively correlated to several maladaptive self-reported modes. Cleary, these findings do not match clinical observation of high levels of pathology in ASPD.

We are not aware of any previous studies comparing self- and other-report of schema modes or other cognitive concepts in specific PDs. In sum, the present study compares the self-reported schema modes of PD patients with the mode ratings of their therapists. We hypothesize that there will be a strong discrepancy between self- and other report in ASPD with relatively underreporting of maladaptive constructs by these patients. More specifically, we expect therapists to indicate a higher level of pathological modes and a lower level of adaptive modes than the antisocial patients report themselves. In contrast, more agreement is expected between self-and other report of modes in patients with BPD and ClC-PD, which are used as PD control groups. Additionally, the influence of the level of psychopathy of the antisocial group on the self-versus other report will be tested. In this way the hypothesis will be tested that antisocial patients that are high in psychopathy would be even more prone to relatively underreport maladaptive modes than ASPD-patients low in psychopathy.

2. Method

2.1. Subjects

Self-reported modes were compared with mode report by their therapists for $N = 92$ patients, divided over three patient groups: patients with ASPD ($n = 18$), patients with BPD ($n = 47$) and patients with ClC-PD (avoidant, dependent and/or obsessive-compulsive PD, $n = 27$). Four participants had to be removed because of missing data. The antisocial patients were all male, while the borderline group consisted of 38 women and 11 men, and the ClC-PD group of 20 women and 8 men. Consequently, the groups differed significantly with respect to gender, $\chi^2\ (2) = 33.72,\ p = <.001$. Mean age of the ASPD group was 35.12 years (range: 22–51), for the BPD group 33.10 (range: 19–53), and 37.61 for the ClC-PD group (range: 20–57). The groups did not differ significantly in age, *Kruskal-Wallis:* $\chi^2[2;\ N = 92] = 3.15,\ p = .21$. Educational level was assessed by determining which of the five levels of the Dutch scholar system the participant completed (from receiving no education to completing a higher education). Results indicated that the antisocial group was significantly lower educated than the two other groups, *Kruskal-Wallis:* $\chi^2[2;\ N = 92] = 22.28,\ p < .001$. We checked for gender effects by repeating the analyses for men only. We could not control for educational level because it was strongly correlated and in fact

inherently characteristic for ASPD (e.g., Robins, Tipp, & Pzybeck, 1991). If one would use such a variable as a covariate, one would covary out the group effects (Miller & Chapman, 2001). The majority of patients were single (ASPD: 69%, BPD: 69% and ClC-PD: 57%), and thus there were no group differences in this respect, χ^2 (2) = 3.17, $p = .21$. General exclusion criteria were a psychotic or bipolar disorder, age < 18 and > 65 years, intoxication by alcohol or drugs during testing, IQ below 80, vision problems and not being native speaker of Dutch. The ethical committee of the Academic Hospital of Maastricht (the Netherlands) approved this study.

2.2. Materials

2.2.1. Screening instruments

Dutch versions of the Structured Clinical Interview for DSM-IV Axis I and Axis II disorders (SCID I and SCID II, First, Spitzer, Gibbon, & Williams, 1997; First, Spitzer, Gibbon, Williams, & Benjamin, 1994; van Groenestijn, Akkerhuis, Kupka, Schneider, & Nolen, 1999; Weertman, Arntz, & Kerkhofs, 2000) were used to assess DSM-IV axis I diagnoses and personality pathology. Previous studies (Martin, Pollock, Bukstein, & Lynch, 2000; Zanarini & Frankenburg, 2001; Zanarini et al., 2000) revealed adequate inter-rater reliability of the SCID I. Satisfactory inter-rater reliabilities and internal reliabilities for SCID II were found (Maffei et al., 1997; Weertman, Arntz, Dreessen, van Velzen, & Vertommen, 2003). In the current sample, double rating of 90 SCID II interviews yielded high inter-rater reliabilities values (ICC between .76 and .98, with a mean of .92).

2.2.2. Psychopathy checklist – revised (PCL-r)

The PCL-r (Hare, 2003) is a 20-item semi-structured interview of behaviours and characteristics associated with psychopathy, with this information then being corroborated by file records. Each item is scored 0,1 or 2, for a maximum total score of 40. Ratings on the PCL-r were made by staff of the forensic hospitals or by the first author who were extensively trained in the administration of the PCL-r. In general, the inter-rater reliability of the PCL-r proved to be good, as was the internal consistency (Hare et al., 1990). Previous studies revealed a two-factor, four-facet hierarchical model of the PCL-r (Bolt, Hare, Vitale, & Newman, 2004). The four facets are: interpersonal (facet 1), affective (facet 2), lifestyle (facet 3) and antisocial (facet 4). These four-facets load onto two higher order factors: interpersonal (factor 1), and lifestyle/antisocial (factor 2). The total level of psychopathy, the PCL-r factors and facets were expressed continuously.

2.2.3. Schema modes

In order to compare self- with other-reported schema modes, a short version of the Schema Mode Inventory (SMI, Young, Arntz, Atkinson, Lobbestael, Weishaar, van Vreeswijk, & Klokman, 2007, www.schematherpy.com) was composed. Item selection from the long SMI version was based on face validity assessment of adaptability for other-report (items describing more external, observable aspects rather than internal motivations) and good psychometric values of the items in earlier studies (Arntz, Klokman, & Sieswerda, 2005; Lobbestael et al., 2005). In this short SMI each of the 14 modes were represented by three items, making a total of 42 items. For the other-SMI version, questions were grammatically adapted to make them suitable for the assessment of behaviours, feelings and cognitions of patients (e.g. '*He* finds *him*self a good person'). Items had to be scored on frequency using a 6-point Likert scale ranging from 'never or hardly ever' to 'always'. An overall score for each mode was calculated from the scale sum score divided by three. In the current sample, internal consistencies of these 14 subscales of the self-SMI version ranged from $\alpha = .41$ to $\alpha = .81$, with a mean Cronbach's α of .63. For the other-SMI version, internal consistencies of these 14 subscales ranged from $\alpha = .59$ to $\alpha = .80$, with a mean Cronbach's α of .72. These seemingly low internal reliability levels could be merely due to the low number of items per scale. In order to empirically test this, we recalculated internal reliability with the Spearman-Brown formula, which estimates internal reliability if the SMI would consist of 9 items per scale (approaching the number of items per scale of the long SMI version). Spearman-Brown internal reliability estimates of the self-SMI version ranged from $R = .68$ to $R = .93$, with a mean internal reliability of $R = .83$. For the other-SMI version, internal consistency estimates ranged from $R = .72$ to $R = .91$, with a mean R of .86. All of these R values can be considered sufficient to

excellent indicating that the α values of the 3-item SMI version are indeed due to the low number of items per scale and not to a low quality of the SMI questionnaire.

2.3. Statistical analyses

Comparison between self- and other report of modes was assessed by means of repeated measures analyses with report (2 levels: self-and other) and modes as within subject variables and group as between subject variable. This repeated measure analyses was done twice; once for the adaptive modes (2 levels) and once for the maladaptive modes (12 levels). Post-hoc tests were performed in two ways. First, paired-sample *t*-tests were performed to test whether self- and other-report differed significantly from each other for each mode within each group. Second, groups were compared with simple contrasts (ASPD group versus BPD and ClC-PD group), to test whether the discrepancy between self- and other-report in the ASPD group differed markedly from that difference in the BPD and ClC-PD groups.

Because some of the group × gender cells were too small (i.e. there we no female ASPD and only 8 male ClC-PD patients), a full-factorial gender by group analyses could not be performed. To exclude that effects were caused by gender, ANOVA analyses were performed on only the male subjects with the difference score (i.e. self-versus other report) of the schema modes as the dependent variable and group as fixed factor. It was evaluated whether the results obtained before in the complete sample would be the same for men.

Finally, in order to determine the influence of psychopathy on the self-versus other mode report in the antisocial group, Pearson Correlations between the difference scores and the total PCL-r score, factor 1 and 2, and facet 1–4 were calculated.

2.4. Procedure

Informed consents were signed, the SCID interviews were administered to all participants and antisocial patients were interviewed with the PCL-r. Next, all participants filled out the short SMI. Finally, participants were debriefed and thanked for their participation. The patient's main therapist filled in the other-report version of the SMI, which was mostly returned to the researcher within two weeks.

3. Results

3.1. Patient versus therapist ratings

Means of the self- and other mode scores for each group are presented in Table 1. Repeated measures analyses revealed a significant three-way interaction for self-other report × modes × group for the maladaptive modes, $F\ (22, 86) = 2.49$, $p = .001$, but not for the adaptive modes, $F\ (2,89) = .20$, $p = .82$. Results of the *t*-tests assessing whether self- and other-report differed significantly, are presented in Table 2 for each group. In the ASPD group, self- and other-reported modes differed significantly in 11 out of 14 modes (all maladaptive modes but the Demanding Parent). In all of these cases, antisocial patients indicated a significantly lower presence of these modes than their therapists did. In the borderline group, this difference was only significant in three modes. More specifically, borderline patients reported a lower presence than their therapists of the Enraged Child, the Self-Aggrandizer and the Bully and Attack modes. In the ClC-PD group, self- and other report also differed significantly for three maladaptive modes; they scored lower than their therapists on the modes of the Self-Aggrandizer and Punitive Parent and higher than their therapists on the Detached Self-Soother mode. In order to minimize type I errors, the data were also interpreted at the Bonferroni-Holm corrected *p*-values. When interpreting the findings in Table 2 in this more strict way, this would imply that 5 (1 for the ASPD group, 1 for the BPD group and 3 for the ClC-PD group) out of 42 self-other contrasts within the groups that are significant at the $p < .05$ level would become non-significant at the Bonferroni-Holm corrected *p*-level. Thus, using Bonferroni-Holm corrected *p*-levels does not change the main findings of the current data.

Table 1
Means and standard deviations of all self- and other-reported modes scores for antisocial PD, borderline PD and cluster C PD groups ($N = 92$).

Schema modes	Antisocial PD ($n = 18$)		Borderline PD ($n = 47$)		Cluster C PD ($n = 27$)	
	Self (SD)	Other (SD)	Self (SD)	Other (SD)	Self (SD)	Other (SD)
Vulnerable child	2.15 (.82)	3.63 (1.02)	3.76 (1.08)	3.78 (.83)	3.65 (.88)	3.81 (.74)
Angry child	2.43 (.98)	3.97 (.82)	3.55 (.97)	3.69 (.78)	3.53 (1.01)	3.54 (.81)
Enraged child	2.02 (.62)	2.93 (.86)	2.59 (1.10)	2.94 (.88)	1.72 (.68)	1.94 (.67)
Impulsive child	2.76 (.70)	3.71 (.77)	3.73 (.92)	3.50 (.78)	2.56 (.58)	2.49 (.82)
Undisciplined child	2.54 (.64)	3.85 (.98)	3.60 (.97)	3.43 (.74)	2.91 (.92)	3.07 (.66)
Compliant surrender	2.30 (.82)	3.04 (.93)	3.74 (.87)	3.77 (.96)	3.93 (.84)	4.10 (.62)
Detached protector	2.00 (.86)	3.37 (.85)	3.52 (.93)	3.50 (.82)	3.06 (.75)	3.08 (.69)
Detached self-soother	2.48 (.96)	3.85 (1.10)	3.65 (.90)	3.44 (.96)	2.90 (.77)	2.52 (.72)
Self-aggrandizer	1.69 (.64)	2.90 (1.10)	1.74 (.69)	2.23 (.88)	1.33 (.51)	1.87 (.73)
Bully and attack	2.40 (.71)	3.30 (.92)	2.26 (.72)	2.77 (.90)	1.93 (.62)	1.86 (.67)
Punitive parent	2.06 (.87)	3.04 (.71)	2.99 (1.05)	3.10 (.52)	2.80 (.84)	3.19 (.68)
Demanding parent	2.67 (1.07)	2.70 (1.17)	3.85 (.85)	3.56 (1.01)	4.25 (.94)	4.20 (.91)
Happy child	3.70 (.74)	3.33 (.90)	2.96 (.78)	3.01 (.70)	3.15 (.80)	2.96 (.69)
Healthy adult	4.17 (.98)	3.91 (.91)	2.96 (.94)	3.05 (.75)	2.95 (.93)	2.92 (.66)

Simple contrast analysis (see Table 2) yielded a significant contrast for the self- and other mode discrepancy between the ASPD group and the BPD group for all maladaptive modes except for the Bully and Attack and Demanding Parent modes. The contrasts between the ASPD and the ClC-PD groups in self-other discrepancy were significant for all modes except for the Compliant Surrender, Punitive Parent and Demanding Parent modes. The contrasts for the adaptive modes were not significant between any of the groups. This indicates that the discrepancy between self- and other-reported modes was stronger in the antisocial group compared to the borderline and ClC-PD group for almost all maladaptive modes. Bonferroni-Holm corrected p-values revealed that 6 contrasts (2 between ASPD and BPD, and 4 between ASPD and ClC-PD) would become non-significant while 13 contrasts would remain significant. Thus, using Bonferroni-corrected p-levels does not change the main findings of the current data.

Analyses of the male sample only (see Table 3) revealed that the contrasts between the ASPD group and the BPD group became non-significant for the Enraged Child mode, and the contrast between the ASPD and the ClC-PD group became non-significant for the Enraged Child, the Self-Aggrandizer and the Punitive Parent modes. Bonferroni-Holm corrected p-values reveal that 5 of these differences (2 between ASPD and BPD, and 3 between ASPD and ClC-PD) would become non-significant. This possibly indicates that these four contrasts cannot be attributed to group differences, but to the male gender. The fact that the effect sizes of the between group contrasts of the complete and the male sample differ largely (see Table 2 and 3), further supports the probability that gender effects are indeed in stake here, instead that the disappearing of the four contrasts might merely a power problem. Taken together, the results on the contrasts in self-versus other report of modes with the ASPD group indicate that, the possible gender confounding taken into account, the contrasts between the ASPD and BPD groups were significant for 9 out of 12 maladaptive modes (all except the Enraged Child, Bully and Attack, and Demanding Parent modes) and the contrasts between the ASPD and ClC-PD groups were significant for 7 out of 12 maladaptive modes (all but the Enraged Child, Compliant Surrender, Self-Aggrandizer, the Punitive Parent and the Demanding Parent modes).

3.2. Influence of psychopathy

Pearson correlations between the total psychopathy score and the patient-therapist mode report differences revealed a significant positive correlation with the Demanding Parent mode, $r = .56$, $p = .04$. The PCL-r lifestyle facet (3) had a significant positive relationship with the difference score in Healthy Adult, $r = .56$, $p = .04$. None of the other association between the PCL-r total scale and the modes were significant, $r's < .45$, $p's > .11$, nor were the correlations between PLC-r factor 1, $r's < .42$, $p's > .14$, or factor 2, $r's < .50$, $p's > .07$, or facet 1 to 4, $r's < .51$, $p's > .06$, and the differences scores of any of the modes. Bonferroni-Holm corrected p-values revealed that none of these differences remained significant.

Table 2
Mean difference scores, correlations, paired t-tests and effect sizes comparing self- and other report for antisocial PD, borderline PD, and cluster C PD groups, and simple contrasts between the antisocial and the borderline PD, and the antisocial and the ClC-PD groups (N = 92).

Schema modes	Antisocial PD ($n = 18$)					Borderline PD ($n = 47$)							Cluster C PD ($n = 27$)						
											Contrast								Contrast
	MDS[a]	r	t	p	d[b]	MDS[a]	r	t	p	d[b]	ASPD: t (p)	d[b]	MDS[a]	r	t	p	d[b]	ASPD: t (p)	d[b]
VC	−1.48**	.32	−5.80	<.001	−1.59	−.02	.57*	−.16	.87	−.02	5.57** (<.001)	1.28	−.16	.51**	−1.03	.31	−.20	4.38** (<.001)	1.38
AC	−1.55**	.19	−5.66	<.001	−1.70	−.14	.20	−.87	.39	−.16	4.10** (<.001)	1.23	−.01	.26	−.06	.96	−.01	4.08** (<.001)	1.35
EC	−.91**	.13	−3.87	.001	−1.21	−.35*	.42	−2.20	.03	−.35	2.07* (.04)	.54	−.22	.29	−1.44	.16	−.33	2.21* (.03)	.76
IC	−.95**	.06	−4.01	.001	−1.29	.24	.18	1.49	.14	.27	4.24** (.001)	.68	.06	.21	.36	.73	.10	3.15* (.002)	.93
UC	−1.31**	.02	−4.82	<.001	−1.58	.17	.29*	1.13	.27	.19	4.86** (<.001)	1.04	−.16	.29	−.86	.40	−.20	3.36** (.001)	1.08
CS	−.74*	.02	−2.57	.02	−.77	−.03	.30*	−.18	.86	−.03	2.41* (.02)	.62	−.17	.44*	−1.09	.29	−.23	1.82 (.07)	.56
DPt	−1.37**	.48*	−6.41	<.001	−1.60	.03	.31*	.19	.85	.02	5.60** (<.001)	1.40	−.02	.04	−.10	.92	−.03	4.78** (<.001)	1.44
DSS	−1.50*	−.25	−3.83	.002	−1.33	.21	.32*	1.35	.18	.23	5.47** (<.001)	.96	38	.30	2.26	.03	.51	5.38** (<.001)	.88
SA	−1.21**	.34	−4.80	<.001	−1.34	−.49	.28	−3.53	.001	−.62	2.89* (.005)	.71	−.54*	−.10	−3.00	.006	−.86	2.29* (.02)	.67
BA	−.90**	.48*	−4.46	<.001	−1.09	−.51*	.05	−3.12	.003	−.63	1.03 (.31)	.39	.06	.27	.41	.68	−.11	2.69* (.007)	1.02
PP	−.98**	.21	−4.14	.001	−1.23	−.11	.38**	−.78	.44	−.13	2.88* (.005)	.88	−.38*	.22	−2.08	.05	−.51	1.78* (.01)	.61
DP	−.05	.53*	−.18	.86	−.02	.29	.37**	1.90	.06	.31	1.72 (.09)	.22	.05	.48*	.27	.79	.05	.82 (.42)	.0001
HC	.37	.19	1.50	.15	.45	−.05	.28	−.41	.68	−.07	−1.52 (.13)	.33	.19	.20	1.05	.30	.25	−.55 (.58)	.18
HA	.26	.35	1.02	.32	.27	−.09	35*	−.62	.54	−.11	−1.28 (.21)	.16	.03	.21	.16	.88	.04	−.69 (.49)	21

Note: VC = Vulnerable Child, AC = Angry Child, EC = Enraged Child, IC = Impulsive Child, UC = Undisciplined Child, CS = Compliant Surrender, DPt = Detached Protector, DSS = Detached Self-Soother, SA = Self-aggrandizer, BA = Bully- and Attack, PP = Punitive Parent, DP = Demanding Parent, HC = Happy Child, HA = Healthy Adult.
*Significant at $p < .05$; **significant at $p < .001$.
[a] Mean difference score; a positive MDS indicates that the patients rated a higher presence of the modes than their therapists, a negative MDS indicates that the therapists indicate a higher presence of the modes than the patients.
[b] Cohen's d.

Table 3
Between group differences, contrasts between antisocial PD and borderline PD and between antisocial PD and cluster C PD in males (N = 36) in self minus other report scores, and associated effect sizes.

Schema modes	Antisocial vs borderline				Antisocial vs cluster C			
	BGD[a]	*t*	*p*	*d*[b]	BGDS[a]	*t*	*p*	*d*[b]
Vulnerable child	1.95**	5.09	<.001	1.68	1.40*	3.41	<.001	1.86
Angry child	1.68**	3.70	.001	1.28	1.05*	2.13	.001	1.27
Enraged child	.87	1.88	.07	0.66	.66	1.31	.07	.03
Impulsive child	1.69**	4.12	<.001	1.55	1.37*	3.12	<.001	.13
Undisciplined child	1.92**	4.33	<.001	3.01	1.11*	2.32	<.001	.88
Compliant surrender	1.24*	2.99	.005	2.16	.16	.35	.005	1.43
Detached protector	1.81**	5.15	<.001	2.09	2.12**	5.62	<.001	2.14
Detached self-soother	2.07**	3.87	.001	1.82	2.21**	3.85	.001	.56
Self-aggrandizer	.81*	2.22	.03	.72	.51	1.28	.03	1.06
Bully and Attack	.37	.93	.39	.004	1.11*	2.43	.39	.12
Punitive parent	.92*	2.40	.02	.93	.02	.006	.02	.02
Demanding parent	.45	1.05	.30	1.20	.007	.02	.30	1.24
Happy child	−.34	−.83	.42	.55	−.18	−.42	.42	.86
Healthy adult	−.16	−.39	.99	.92	.41	.92	.99	.58

*Significant at $p < .05$; ** significant at $p < .001$.
[a] Between group differences; a positive BGD indicates that the difference between ASPD-patients and therapists in mode report is stronger than the difference in mode report between the BPD and ClC-PD patients and therapists, a negative BGD indicates that the difference between ASPD-patients and therapists in mode report is lower than the difference in mode report between the BPD and ClC-PD patients and therapists.
[b] Cohen's d.

4. Discussion

In line with our expectation, patients with ASPD rated the presence of most of their maladaptive modes markedly lower compared to their therapists. This discrepant pattern was only observed for some of the modes in the borderline and ClC-PD group. Furthermore, the patients-therapists discrepancy was significantly stronger in the antisocial group than in the two PD control groups. This strong discrepancy in maladaptive mode rating of the ASPD-patients and their therapists can be interpreted at least in six ways. First, antisocial patients may deliberately deny the presence of their maladaptive modes. On the one hand, this explanation is plausible since lying and denying are central diagnostic criteria of ASPD. On the other hand however, since the mode rating of the patients in this study was only used for research goals it is unclear what antisocial patients would gain from under-reporting these maladaptive modes. Second, antisocials could lack insight into their psychopathology. Although PD patients in general are described as lacking insight into their pathology due to the ego-syntonic nature of PDs, the current results might indicate that antisocial patients in particular may have even less insight into their pathology than other PD patients have. Third, antisocials may genuinely believe that they have less pathology which could reflect a bias in their self-image. Fourth, the mode patient-therapist discrepancy could reflect an overestimation of the strength of the maladaptive modes by the therapists of the antisocial patients. Although one could argue that therapists should be able to give a more objective estimation of mode presence due to their professional status, it is possible that therapists are e.g. frustrated or discontent by poor therapy progress with these patients, and therefore do not rate the presence of these modes accurately. Fifth, given that the difference in educational level was the highest between the ASPD-patients and their therapists, it cannot be excluded that the patient-therapist mode report discrepancy is (partly) due to a different understanding of the items between the ASPD group and their therapists. Finally, it might the case that neither the patients nor the therapists made an accurate judgement of the level of schema modes of the ASPD-patients. Geller (2002) for example showed that both eating disordered patients and their clinicians made ratings of motivations that are unrelated to their clinical progress, while neutral observers made better judgements.

Irrespective of the reason of the lower scores of maladaptive modes of the antisocial patients, low scores on self-reported questionnaires of ASPD-patients should alert forensic mental health professionals. Possibly, relying solely on self-report methods of assessment could produce a limited and

ameliorated view of antisocial patients' mental status. These data indicate the importance of including collateral information besides self-report when it concerns antisocial patients. While previous studies already indicated the importance of collateral information in the diagnostic phase of therapy, this study indicated that this is also necessary in the assessment of cognitive concepts like schema modes.

Contrary to our expectations, the patients' and therapists' ratings of the adaptive modes (i.e. the Healthy Adult and the Happy Child) did not differ significantly in any of the groups. This seems to indicate that none of the patient or therapist groups misrepresent their adaptive mode constructs; the discrepancy in mode report is only present regarding the maladaptive schema modes. This finding is especially striking for the ASPD-group given the high level of disagreement between patients and therapists regarding the maladaptive modes. Together with the finding of a stronger Healthy Adult mode rating of the therapists of the ASPD group than the other groups, it is quite possible that although ASPD is an extreme form of psychopathology, antisocial patients might be in part healthy, or even have adaptive "default" modes. So it could be the case that ASPD-patients most of the time find themselves in adaptive modes, but under certain circumstances (e.g. when provoked) maladaptive modes can rise to high levels. Although it has been proven that antisocial patients have very distorted cognitions regarding certain specific themes (e.g. like their evaluative attributes to morally good or bad or to violence, Cima, Tonnaer, & Lobbestael, 2007; Gray, Brown, MacCulloch, Smith, & Snowden, 2005), these distortions may reflect rather isolated problem areas that might exist next to healthy views on other areas in their life.

This study has several advantages. First, both PD pathology and mode presence were measured by means of valid instruments. Second, in many studies informants are selected by the subject themselves and were friends, significant others or relatives of the subject. This might be described as a 'letter of recommendation' problem, instead of an accurate, objective appraisal of the subject's personality disorder traits (Klonsky, Oltmanns, & Turkheimer, 2002). By using therapists as informants in the current study, it can be assumed this was avoided since the relationship between a patient and his/her therapist is primary a professional one.

Some drawbacks of the current study should be acknowledged. First, sample size was relatively small. Second, only male antisocial patients were included. While this is not a-typical since some 80% of the antisocial population is male, the current data cannot be generalized to a female antisocial population. Third, the current study only included one other-informant. It would be interesting to test the agreement on modes between patients, therapists and intimates of the patients.

This study was the first to assess differences between patient- and therapist reported presence of schema modes in a PD sample. In conclusion, the present study demonstrated that ASPD-patients report less maladaptive modes than their therapists do. Consequently, it might be advisable to supplement self-report by antisocial patients with alternative assessment methods for cognitive concepts.

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