Psychoanalytic Conceptions of the Mind in Relation to Personality Disorders of Drug Abusers

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The purpose was to investigate whether signs of DMTm (Defense Mechanism Technique modified) could discriminate between the ten groups of DSM-III-R personality disorders (PDs) and DSM-III-R clusters among drug abusers. DMTm signs are interpreted as different kinds of defense and anxiety. The 65 subjects were recruited from Sabbatsberg Hospital, Sweden. Prominent affect defenses were projected introaggression in paranoid and schizotypal PDs, introaggression in borderlines, inhibition in avoidant PD and barrier/affect isolation in obsessive-compulsive PD. Prominent identity defenses were marked denial in narcissism, reversal II 1–2 in dependent PD and reversal IV in histrionics. Patients with anti-social PD (ASPD, n= 53 out of 65) were analyzed separately. Results underlined psychoanalytic conceptions of the mind in relation to PDs of drug abusers.

Key words: DMTm, drug abuse, PD (personality disorder), ASPD (anti-social PD), clusters

Defense Mechanism Technique modified (DMTm) is a percept-genetic technique of personality assessment, especially focused on defense mechanisms, constructed by Andersson (1991). DMTm signs (i.e. signs of Defense Mechanism Technique modified) are interpreted to reveal defense mechanisms and in addition different kinds of anxiety. What is named "additional" sign is interpreted as signs of neither defense nor anxiety. DMTm has been developed from the original Defense Mechanism Test (DMT) that was invented by Kragh (1969, 1985) primarily as a test for personnel recruitment.

In a sequence of investigations, Aleman (2004) first investigated how 19 drug abusers with psychosis (DSM-III-R) differed in DMTm in comparison to 65 non-psychotic drug abusers. Among all results, the psychotic drug abusers were more prone to score: traumatic anxiety, repression, denial 2–3, splitting, reference and three out of the four variants of identity de-

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fense, i.e. denial through reversal. To sum up, the psychotics showed signs in DMTm of anxiety, an "additional" sign and almost all identity defenses; only one affect defense was noted.

In a second study with the focus on the 65 non-psychotic drug abusers, Aleman (2005) investigated whether DMTm signs related especially to DSM-III-R clusters, but also to the different PDs, independently of cluster. The three largest groups of PDs turned out to be paranoid, narcissistic and borderline disorders. Results showed that projected introaggression was significant to cluster A ("odd") and inhibition to cluster C ("fearful"). Results directed to PDs were: barrier isolation and introaggression were significant to borderline PD while narcissistic drug abusers significantly showed no introaggression. Borderlines showed the "additional" sign of disappearance of threat as well.

A later problem emerged: how could DMTm results be understood in relation to DSM-III-R clusters that are heterogeneous in character? Specifically, clusters B ("dramatic") and C ("fearful") were estimated to be diverse, while cluster A ("odd") was more homogeneous and additionally more influenced by heredity than the other clusters. It was also unfortunate that only three out of ten groups of PDs could be statistically calculated. These problems were challenges for a third investigation.

The present investigation, the third in sequence, was triggered by the above-mentioned second study (Aleman, 2005). From perspective of the second study—that only three out of ten groups of PDs could be statistically analyzed and that another dilemma was exposed, namely, difficulties in understanding DMTm results in relation to DSM-III-R clusters—a complementary approach was used. The following research question was raised: "Would it be possible to understand the constitution of these clusters better if the present DMTm investigation more specifically used all ten independent DSM-III-R PDs included in the clusters?" The problem of this hypothesis was, as in the second study, the risk of mass significance because of many comparisons of groups of PDs with few subjects. The purpose of this study was therefore to investigate whether DMTm signs could be meaningfully distributed (without statistical calculation) in some of the ten groups of PDs. In this manner of procedure, the results of this study may contribute to understanding drug abusers investigated for DMTm in relation to DSM-III-R clusters and PDs. Another purpose was to investigate the 53 drug abusers diagnosed with ASPD with comorbidity of a second PD in relation to DMTm. The final purpose was to compare results with some empirical studies of projective techniques, DMTm, DMT, MCT (Meta Contrast Technique, Smith, Johnson & Almgren, 1989) and CFT (Creative Functioning Technique, Smith & Carlsson, 1990), but less rigorously compared to the study by Aleman (2005).

Method

Subjects

The 65 drug abusers were consecutively recruited during the years 1994–96 from the drug abuse clinic at Sabbatsberg Hospital in Stockholm, Sweden. They were specifically recruited from a motivation unit for non-psychotic drug abusers. They had in common the DSM-III-R, axis I, diagnosis of substance dependence on either heroin (11 women and 25 men) or amphetamine (8 women and 21 men) for at least five years. All patients used large doses of the drug daily, although some had abused alcohol, cocaine or bensodiazepines for periods of time. There was a balanced frequency between the two different drug groups, although not of relevance for investigation in this study. Exclusion criteria were diagnoses of affective uni-/bipolar mood disorder, organic brain damage and long-term psychopharmacologic therapy. In the group of 65 drug abusers the median age was 31.5 years and the age range was 22–43 years.

At the time of testing with DMTm, all of them had been drug-free for at least four weeks,[1] and DSM-III-R diagnoses were assessed shortly after this test. Five psychiatrists were trained in applying DSM-III-R, axis II, concerning diagnoses of PDs of the 65 drug abusers. SCID II, The (semi-) Structured Clinical Interview for DSM-III-R was used to confirm a suspected DSM-III-R diagnosis. SCID was not used as an intake procedure, insuring that all of the major axis II diagnoses were systematically evaluated. A control that no one of the five psychiatrists had an excess tendency to diagnose a particular PD, because of "a favorite diagnosis," was performed and showed this was not the case.

The patients, irrespective of drug of choice, were distributed in three DSM-III-R conceptualized clusters depending on the PDs. No overweight of either a specific drug, deviation of age or sex was seen in the three clusters. Cluster A (n= 15), called "odd" or "eccentric," consisted of the following PDs: paranoid (n= 8), schizotypal (n= 3), schizoid (n= 4). Cluster B (n= 22), called "dramatic," consisted of: borderline (n= 8), histrionic (n= 5) and narcissistic (n= 9) PDs, while cluster C (n= 22), called "fearful" or "anxious," consisted of avoidant (n= 6), dependent (n= 7), obsessive-compulsive (n= 6) and passive-aggressive (n= 3) disorders. The number of patients with diagnosis of UNS (unspecified, or combinations of different PDs with no apparent dominant one) was 6. Note that the DSM-III-R criteria for ASPD, normally

[1] *General information on drugs and duration of detoxification before interviews and tests:* Concerning amphetamine, cocaine and alcohol at least 14 days detoxification was to be applied. For heavy use of opiates (morphine, methadone and heroin) and bensodiazepines, also cannabis, 4–6 weeks of detoxification had to be applied (cf. Schuckit, Helzer, Crowley, Nathan, Woody & Davis, 1991).

in cluster B, were fulfilled by 53 patients out of 65. The subjects in this study were heavy intravenous drug abusers, involving a high degree of criminality. In Tables 1 and 2, ASPD was seen not as a primarily PD, but a very common trait among heavy drug abusers. On the other hand it seemed important to observe the 53 drug abusers as primary ASPD with comorbidity of a second PD, i.e. another axis II diagnosis (see Figure 1). DMTm signs in ASPD together with their second PD were also presented (see Table 3).

A critical aspect of representation of the 65 drug abusers was the dilemma that drug abusers who were excluded in the consecutive series of patients were not registered. Specific information on how many of the excluded drug abusers could be diagnosed with affective uni-/bipolar mood disorders, brain damage etc. was thus not documented.

Defense Mechanism Technique modified

DMTm is designed to facilitate interpretation of results in terms of the Andersson (1991, 2004) psychoanalytic model of the mind. An important aspect of this model is that main motives and even specified motives for defense can be derived from developmental positions. Andersson describes two basic types of defenses: affect and identity defenses. Affect defenses are: repression, projected introaggression, inhibition, introaggression, barrier isolation and affect isolation. The main motive behind affect defense (position 4) is "intrapsychic threat," e.g. distorted oedipal fantasies, evoked by affect anxiety. The second type of defense, identity defenses are: denial and denial through reversal I–IV. The main motive behind denial (position 2) is "loss of the security-providing object" evoked by separation anxiety and the main motive behind denial through reversal (position 6) is "loss of sense of self" evoked by identity anxiety.

The specified motives behind defenses can be obtained from different psychoanalytic models. The specified motive behind denial derives from Freud's (1900) reflex-arc (attachment) model (cf. Bowlby, 1979). The specified motives behind denial through reversal I–IV from Kohut's (1971, 1977, 1984) model of self/self-object. The specified motives behind affect defenses from Klein's (1935, 1940, 1946) affect positions model.

Two different picture-motifs are shown in a tachistoscope. The first one motif and then the other is shown in a series of 20 expositions each, the exposition time increasing successively in each series from 5 to 1150 milliseconds. After each exposition, the subject's task is to report verbally what has been seen or experienced, and at the same time drawing a simple picture. This results in a total of 40 such reports, 20 for each picture-motif. At the center of both pictures, a young person of the same sex as the test person can be seen. This person, termed

the hero or heroine (H), is also provided with a disguised sexual attribute (A). Shown in a peripheral position in the picture is an older person of threatening appearance, who in the first picture is a woman ("the threatening mother") and in the second picture a man ("the threatening father"), termed in both cases the Pp (peripheral person).

When the test person deviates from "correct" reporting of the content of the pictures, it is of primary essence. Some deviations are interpreted as signs of defense and others as signs of anxiety. Still other deviations, referred to in the manual (Andersson, 2004) as "additional" signs, are interpreted as signs neither of defense nor of anxiety. It is primarily within this category that "new" signs, such as that referred to here as "disappearance of threat," have been explored in this investigation and in others.

The DMTm protocols obtained were blind-coded by Professor A. L. Andersson and by the author of this paper. In those few cases where our codings failed to coincide, we reached agreement. Then the start of data distribution, in form of a straightforward listing of DMTm signs, was processed (see Tables 1, 2 and 3).

To minimize the frequency of variables, DMTm was used exploratory. One can find DMTm signs in either series 1 alone, in series 2 alone or in both series 1 and 2. This procedure resulted in 21 dichotomous variables, with at least five individuals/signs each. That number in each variable was assumed to be the minimum to be presented in the tables of results. These signs were involved: affect anxiety; identity anxiety; H-repression, Bp-repression; projected introaggression; inhibition; introaggression; barrier isolation; affect isolation; marked denial; denial 2–3; denial through reversal I, II 1–2, II 3, III and IV; disappearance of A; disappearance of threat; H positive; H afraid and Bp wrong gender.

The content of different DMTm signs reported in tables of results is described here:

Affect defenses:

Projected introaggression. Pp being seen as injured, tormented, dejected, sad, frightened, worried or exposed, or A being seen as something which is damaged, broken, worthless, bad or threatening.

Inhibition. On at least five consecutive exposures, Pp being seen as a petrified, inanimate or disguised being that is neither threatening nor unpleasant, or as a specified object (repression at the place of Pp not scored here), or on at least five consecutive exposures, Pp being

seen as an object distinguished by its contour or as a framed, empty surface (barrier isolation not scored here).

Introaggression. H being seen as injured, wretched, in trouble, or the like, or as being critical toward the self or involved in a situation of destructive character.

Barrier isolation (1–2). A barrier being added between H and Pp or H and Pp belonging to different realities, or Pp being seen as a framed, empty surface or as an object distinguished by its contour.

Affect isolation (3–4). Pp being seen as a white or shining object or surface, or there being a total loss of the specified content in the exposure preceding the loss.

Identity defenses:

Marked denial. Pp being missing or uninterpreted on at least seven consecutive exposures, starting with the first exposure (denial 1) and additionally 4 exposures in either of the series 1 or 2 (marked denial).

Denial through reversal II 1–2. H and Pp being seen as having a positive relationship on any of the exposures or Pp as being positive in character on at least two exposures, H is angry or threatful while Pp is neither threatful nor unsympathetic.

Denial through reversal IV. Pp being doubled, or H being seen as a duplicate of H, or Pp's gender being changed from correct to incorrect but Pp being neither threatening nor unpleasant when thus changed, or Pp being explicitly denoted as H's father in the first series or as H's mother in the second series and at the same time being neither threatening nor unpleasant, or Pp being a person younger than H and being neither threatening nor unpleasant, or H being changed from a younger person to an older one 35 years of age or more, or H being seen as an older person, 35 years or more, on at least 12 consecutive exposures.

"Additional" sign:

Disappearance of threat. Denotation of threat being missing on Pp on at least two consecutive exposures after an earlier indication.

Statistics

Bold results in Tables 1, 2 and 3 were statistically significant with a p-value of between .01 and at least .0002 when calculated with Fisher's exact probability test. This statistical test is appropriate to use when calculating fourfold tables where numbers in any cell are low, as in this study. To calculate fourfold table, one PD was compared to the rest of the nine PDs (that constituted one group) in relation to a DMTm sign (how many subjects had/had not the sign in question). Such repeated pair wise comparisons would create mass significance when these calculations were multiple (each PD must be compared to the rest of the nine PDs, as a group, in relation to 21 DMTm variables). Chi-square was also inappropriate to use when numbers in cells became as low as between 3 and 9. In this study, instead a straightforward listing of DMTm signs in relation to ten groups of PDs seemed to be more adequate. This approach was warranted since the purpose of the study was to reveal novel and possibly meaningful DMTm signs and patterns. Bold numbers in Tables 1, 2 and 3 indicate prominent DMTm signs.

Results

Five affect defenses were found in drug abusers with different PDs (Table 1). In the "odd" cluster, both paranoid and schizotypal PDs showed projected introaggression. In the "dramatic" cluster, borderlines showed (8/0) more introaggression than other PDs did, while narcissistic PD in the same cluster proved a diametrically opposite result, no introaggression at all (0/9). Drug abusers with avoidant PD in the "fearful" cluster showed a high frequency of inhibition. Obsessive-compulsive PD in the same cluster confirmed a high occurrence of both barrier and affect isolation.

Three identity defenses were prominent in drug abusers with narcissistic, histrionic and dependent PDs (Table 2). In the "dramatic" cluster, narcissism showed marked denial (8/1) and histrionics, denial through reversal IV (reversal). Drug abusers diagnosed with dependent PD, in the "fearful" cluster, showed reversal II 1–2.

Two identity defenses and one affect defense were common in ASPD with comorbidity of another DSM-III-R, axis II diagnosis (Table 3). These results were chronologically: ASPD/narcissism confirmed a high occurrence of marked denial and ASPD/dependent confirmed reversal II 1–2. ASPD/borderlines showed the affect defense of introaggression.

The only frequent "additional" sign was disappearance of threat. It was related to drug abusers diagnosed as borderline PD (Table 2) and also in ASPD/borderline (Table 3).

No DMTm sign of different kinds of anxiety was found.

Table 1

Affect Defenses in Relation to Personality Disorders of Drug Abusers

DSM-III-R clusters	Projected introaggression	Introaggression	Inhibition	Barrier isolation	Affect isolation
"Odd"					
Paranoid (n= 8)	**4/4**	3/5	0/8	3/5	1/7
Schizotypal (n= 3)	**3/0**	2/1	1/2	1/2	0/3
Schizoid (n= 4)	0/4	1/3	0/4	1/3	0/4
"Dramatic"					
Borderline (n= 8)	1/7	**8/0**	0/8	5/3	2/6
Histrionic (n= 5)	1/4	1/4	0/5	0/5	1/4
Narcissistic (n= 9)	0/9	0/9	0/9	0/9	0/9
"Fearful"					
Avoidant (n= 6)	0/6	0/6	**4/2**	1/5	2/4
Dependent (n= 7)	3/4	3/4	0/7	2/5	0/7
Obsessive-comp. (n= 6)	1/5	3/3	1/5	**6/0**	**4/2**
Passive-aggressive (n= 3)	1/2	3/0	0/3	1/2	1/2
UNS (n= 6)	0/6	1/5	0/6	0/6	1/5

Note, the first number in the distribution indicates the frequency of patients who have the sign in question, the second number shows the frequency of patients who lack the sign.

Table 2

Identity Defenses and One "Additional" Sign in Relation to Personality Disorders of Drug Abusers

DSM-III-R clusters	Marked denial	Reversal II 1–2	Reversal IV	Disappearance of threat
"Odd"				
Paranoid (n= 8)	1/7	2/6	3/5	3/5
Schizotypal (n= 3)	2/1	1/2	2/1	0/3
Schizoid (n= 4)	2/2	0/4	1/3	0/4
"Dramatic"				
Borderline (n= 8)	3/5	3/5	2/6	**5/3**
Histrionic (n= 5)	1/4	3/2	**5/0**	1/4
Narcissistic (n= 9)	**8/1**	1/8	4/5	0/9
"Fearful"				
Avoidant (n= 6)	1/5	0/6	1/5	0/6
Dependent (n= 7)	1/6	**6/1**	3/4	3/4
Obsessive-comp. (n= 6)	2/4	0/6	1/5	1/5
Passive-aggressive (n= 3)	2/1	2/1	0/3	1/2
UNS (n= 6)	4/2	1/5	5/1	1/5

Table 3

DMTm Signs in Drug Abusers With Anti-Social PD and Comorbidity of Another DSM-III-R, Axis II Diagnosis

DSM-III-R clusters	Marked denial	Reversal II 1–2	Disappearance of threat	Intro-aggression
"Odd"				
ASPD/Paranoid (n= 3)	0/3	1/2	0/3	1/2
ASPD/Schizotypal (n= 2)	2/0	0/2	0/2	1/1
ASPD/Schizoid (n= 3)	2/1	0/3	0/3	1/2
"Dramatic"				
ASPD/Borderline (n= 8)	3/5	3/5	**5/3**	**8/0**
ASPD/Histrionic (n= 4)	1/3	2/2	1/3	0/4
ASPD/Narcissistic (n= 9)	**8/1**	1/8	0/9	0/9
"Fearful"				
ASPD/Avoidant (n= 5)	1/4	0/5	0/5	0/5
ASPD/Dependent (n= 7)	1/6	**6/1**	3/4	3/4
ASPD/Obsessive-comp. (n= 3)	1/2	0/3	0/3	1/2
ASPD/Passive-aggressive (n= 3)	2/1	2/1	1/2	3/0
UNS (n= 6)	4/2	1/5	1/5	1/5

Attrition: 12 out of the 65 drug abusers did not fulfill the criteria of anti-social PD (ASPD, n= 53).

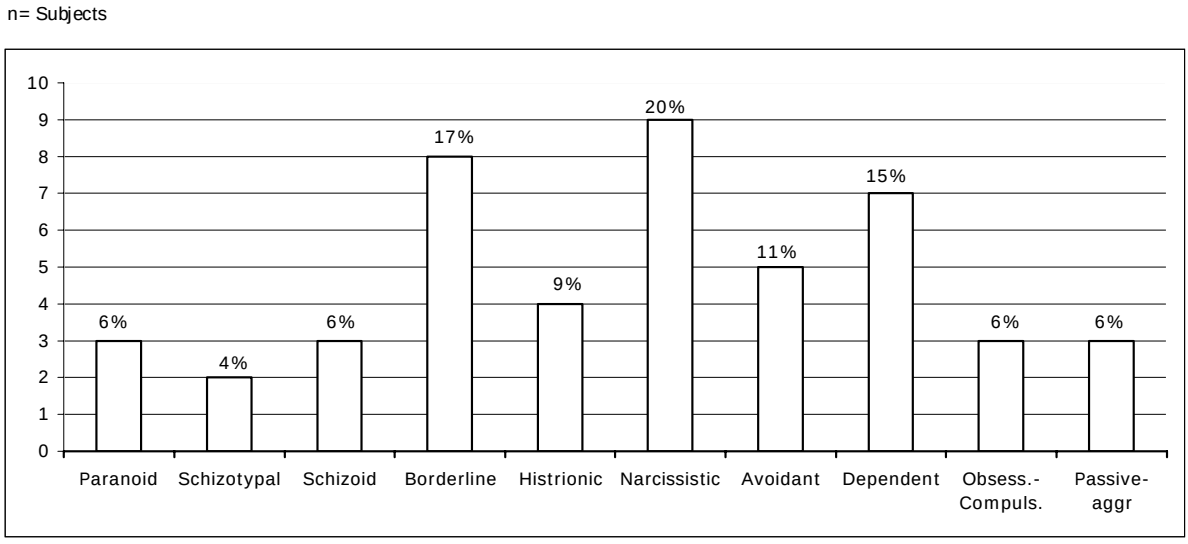

Figure 1. A second DSM-III-R, axis II diagnosis in drug abusers with primary anti-social PD (ASPD).

The proportion of comorbidity in ASPD showed that PDs from the "dramatic" cluster were the most prevalent second diagnosis, especially narcissism and borderline.

Discussion

Projected introaggression was considerably more prominent in drug abusers with paranoid and schizotypal PDs (cluster A) than the other groups of PDs. This is useful and complementary to the previous study (Aleman, 2005) that showed statistically significant ($p \leq .03$) projected introaggression to cluster A ("odd"), but could not specify which PDs were related to the DMTm sign in question. Schizoid PD, also in cluster A, was the only one that did not contribute to the result.

The main motive behind affect defenses derives from position 4, "intrapsychic threat" evoked by "affect anxiety," in the Andersson psychoanalytic model of the mind. The specified motive behind projected introaggression can be interpreted as an expression of problems in the paranoid-schizoid position (Klein, 1946), position 1 in the model. The individual has to handle something "unconditionally evil." There is a function to project self-destructive components in anything or anybody outside the central self, which creates a persecutory inner world. This is a deficiency in the personality organization to "contain the evil inside."

In a study (Bergman, Bergman, Dahlgren & Åsberg, 1992) using DMT, significantly more signs of projected introaggression (also introaggression) were discovered in women with alcohol abuse and in women with depression than a control group. In another DMT study, Sundbom (1992) found a higher frequency of projected introaggression in psychotic inpatients than in neurotics and borderlines. An earlier investigation (Aleman, 2004) of psychotic drug abusers did not demonstrate any projected introaggression.

Sundbom's result is nevertheless of interest for the present study. Diagnoses of paranoid and schizotypal (even schizoid) PDs can also be called "spectrum diagnoses," i.e. not far from being diagnosed as (pre-)psychotic. That is not the case with other PDs. There is considerable evidence for genetic contributions to paranoid, schizotypal and schizoid PDs. This means that they have an inherited tendency to the peculiarities of cognition and eccentricities of thought, which is typical of schizophrenia (e.g. Kety, Rosenthal, Wender, Schulsinger & Jacobsen 1975; Siever, Klar & Coccaro, 1985; Siever, Bernstein & Silverman, 1989). Cluster A seems to be more influenced by heredity and is more homogeneous than the other clusters (cf. Fridell, 1996).

Drug abusers diagnosed as borderline, in cluster B, showed drastically (8/0) more introaggression than all the others. In the previous study (Aleman, 2005) borderlines significantly ($p \leq .0002$) showed introaggression. Interestingly, introaggression could be seen as a differential DMTm sign between borderlines compared to those with narcissistic and avoidant PDs who did not have introaggression at all. Borderline and narcissism, from the same "dramatic"

cluster, showed a totally opposite defensive organization here. According to the present study it is possible to conclude that cluster B is the most heterogeneous cluster of all three investigated from the perspective of DMTm. Even other data from a 5- and 15-year follow-up study (Fridell, Hesse & Johnsson, 2005) showed that ASPD distinctly had worse outcome in criminality, continuous drug abuse and higher mortality compared to patients with other PDs.

In DMTm, the specified motive behind introaggression derives from position 2, the depressive position (Klein, 1935, 1940) in which the infant widens psychologically, unfolding from part objects to whole objects. It perceives more realistic experiences in the (whole) relation. This creates inner tension and the child can suddenly feel ambivalent feelings about the loved object. The love and hate are now directed toward the same whole object and it is difficult to protect the loved parent from its hate. This condition mobilizes feelings of guilt. An unhealthy variant is to direct this hate toward the self (introaggression) to protect the parent.

Sundbom (1992) observed discriminative DMT signs between neurotic, borderline and psychotic patients. Principal component analysis showed that borderlines correlated to introaggression significantly more than neurotics and psychotics.

The DMTm sign of inhibition (position 2) proved to be more common in avoidant drug abusers than in the others. This sign was the least frequent among all signs, only six individuals/signs, but four of them in avoidant drug abusers. In the study by Aleman (2005), the result showed significance ($p \leq .04$) between inhibition and the whole group of cluster C. From the present study, it is possible to deduct that avoidant PD crucially contributed to the significant result in relation to the whole cluster.

As one empirical example of inhibition, Andersson and Ryhammar (1998) were investigating 132 university teachers according to DMTm and CFT. Among all the results they found inhibition (and affect isolation) in those teachers who were not creative at all in CFT.

Drug abusers with obsessive-compulsive PD showed more of barrier and affect isolation than other PDs. Borderline was the only one that came close (5/3) to this result. In fact, in the study by Aleman (2005) previously referred to, borderline correlated significantly ($p \leq .03$) to barrier isolation in a statistical analysis (Fisher's exact probability test).

Barrier isolation derives from position 2 (see above) while the specified motive of affect isolation derives from position 3 in the Andersson psychoanalytic model. This position, manic-obsessional position (cf. Klein, 1935, 1940), corresponds to position 1 in the model. It engages the unconditional evil inside. The prototype state of mind here is a paranoid and schizoid world. In position 1, the typical way in percept-genetic symbolization to handle this evil could be described as "reification," connected to repression, while in position 3 it is more

about "annihilation" (connected to affect isolation) of the evil. Klein clearly pointed out that annihilating the evil affects induced the risk of also annihilating the good affects leading to a psychic vacuum. Smith, Johnson and Almgren (1989) assumed that a specific type of "whitening" the content (as one expression of affect isolation in DMTm) of the exposure in MCT has specifically to do with regressive strategies. It constitutes a discontinuity.

Kragh (1985) empirically confirmed association between the category of isolation in DMT and obsessive-compulsive PD. This result has been corroborated by other studies (cf. Von der Lippe & Torgersen, 1984). Bergman et al. (1992) had critically more of isolation in women with ethanol abuse who succeeded worst in treatment. Montgomery (2002) investigated 128 heavy drug abusers using DMTm, where affect isolation was one of the significant results. It was typical of 29 females using heroin, together with 31 males using amphetamine.

The identity defenses were meaningfully spread among three different PDs. Marked denial was frequent in narcissistic drug abusers in comparison to other PDs. According to the Andersson (1991, 1998) psychoanalytic model of the mind, the main motive (position 2) behind denial is "loss of the security-providing self-object," evoked by separation anxiety. The specified motive derives from position 1 and deals with feeling of loss with a sense of abandonment caused by loss of a primary object (Bowlby, 1979). Andersson believes that this is an effort to embrace the self-integral when exposed to external threat. Marked denial is an elaboration of denial 1, more intense denial. This DMTm sign was not explored in the previous study by Aleman in 2005.

There seems to be an important difference between narcissistic PD and psychotic drug abusers in handling abandonment. The former group showed marked denial (no perception of Bp at all, first 7 exposures plus 4 more exposures in any of the two series), while the latter group instead handled denial 2–3 (discontinuity in perception of Bp). Despite that, Aleman (2004) postulated that the psychotics dealt with the same psychological predicament, in the same position of the model, as the narcissistic drug abusers in this study.

It is interesting that drug abusers diagnosed as dependent (on others) "must" perceive the relation between Pp and H as very positive, reversal II 1 (reaction formation), although the content of the objective picture-motif is the opposite. It is of course critical whom one is vulnerable to and dependent on when "loss of sense of self" is mobilized, which is the main motive (position 6) for the identity defenses of reversal I–IV in the Andersson psychoanalytic model. This process is deepened from the aspect of the specified motive in position 3 (early) of the oedipal period, behind reversal II 1–2, where "loss of the idealized self-object" comprises a threat to identity. In this developmental position of the model there is a critical di-

lemma to be separate and different from the other. In the variant of reversal II 2 (H is angry or threatful while Pp neither is threatful nor unsympathetic), one can argue that dependent drug abusers rather place aggression within themselves (H) than in Pp. This could be seen as one strategy to "conserve" the idealized parent.

Empirically, this sign of reversal II 1 (reaction formation) becomes frequent in both normal population and in clinical groups (e.g. Sjöbäck, 1972). Some studies with use of DMT show a higher degree of the sign in question in clinical groups than in normal population (Rubino, Pezzarossa & Ciani, 1991; Bergman et al., 1992).

Reversal IV was more common in histrionic drug abusers compared to all others. For the first time in the results (see Tables 1 and 2) the group of UNS also had a relatively high frequency (5/1) of the sign in question.

The specified motive here derives from position 4 in the Andersson model and deals with "loss of the grandiose self," while having difficulties with the emotional barrier in the oedipal period concerned with the generation gap. This triadic drama threatens the sense of self.

One study (Bogren, Bogren, Orth & Sjödin, 2002) showed that reversal IV was relevant when patients diagnosed as having panic disorder and agoraphobia scored high points on BDI (Beck Depression Inventory). Finally, in a study (Aleman, 2004) of differences in DMTm between psychotic and non-psychotic drug abusers, psychotics symbolized difficulties with the barrier of generation, which is operationalized through reversal IV.

The "additional" sign of disappearance of threat is still under empirical evaluation and does not yet have a position in the Andersson model. This sign was prominent in borderlines (Table 2). In a study (Aleman, 2005), disappearance of threat showed statistical significance ($p \leq .01$) in drug abusers with borderline PD. The DMTm sign was also compared to other empirical investigations and theoretically discussed in that paper.

Now attention should be focused on the large group of ASPD, which consisted of 53 drug abusers. The most frequent DMTm signs for the total group of ASPD, i.e. including all ten second PDs (see Figure 1), were: denial 1 (n= 43), H-repression (n= 36) and reversal IV (n= 23), but they did not differ from the 12 drug abusers without diagnosis of ASPD.

Prominent DMTm results in relation to ASPD with comorbidity of another axis II diagnosis were presented. From the perspective of DMTm, it is interesting that introaggression, "self-destructiveness," was the only predominant affect defense in the group of ASPD in combination with borderline. All 8 borderline patients were included in the group of ASPD, which means that the "additional" sign, disappearance of threat, remained common as well. These two DMTm signs are specifically related to severe problems with aggression.

It is equally interesting that marked denial, against “loss of the security-providing self-object,” also was indicative in relation to ASPD, which included all 9 narcissistic drug abusers; all but one scored the sign in question. It is worth mentioning that, if one goes back to Figure 1 and observes the proportion of a second diagnosis in the large group of ASPD, borderline and narcissism, from the ”dramatic” cluster, were especially prevalent in the group of ASPD (cf. Fridell, Hesse & Johnsson, 2005).

The DMTm sign of reversal II 1–2 was prominent in the seven drug abusers with dependent PD. All of them were included in the group of ASPD.

In sum, there seems to be an interesting and meaningful distribution of DMTm signs in almost all ten groups of PDs (all but schizoid and passive-aggressive PDs). Drug abusers, in the present study, used virtually all categories of DMTm signs (not DMTm signs of different kinds of anxiety). This study has increased the psychodynamic knowledge of drug abusers with PDs and also in relation to the diverse classification of DSM-III-R clusters. The results of the present study have been complementary to those in the previous published paper by Aleman (2005). They have specified the overall results between DMTm signs and DSM-III-R clusters and also expanded the number of PDs to be explored. The results of this present study located the specific PDs that contributed to statistically significant DMTm results in relation to DSM-III-R clusters (cf. Aleman, 2005). Furthermore, an analysis of the results were able to show that affect defenses are more prominent in clusters A and C, definitely least in cluster B, while identity defenses and one “additional” sign proved to be most frequent in cluster B. It seems not to be a random effect that cluster A (“odd”), characterized by projected introaggression, was the only one of all results that was scored by two different PDs (paranoid and schizotypal) in the same cluster. This cluster is known to be the most homogeneous and related to heredity.

DMTm has also been useful for a descriptive analysis of drug abusers diagnosed with both ASPD and another DSM-III-R, axis II diagnosis. One affect defense, two identity defenses and one “additional” sign were characteristically prominent.

The straightforward listing of DMTm signs provided material for exploring psychoanalytic conceptions of the mind in relation to PDs of drug abusers. The results were interpreted from the psychoanalytic model of the mind that Andersson (1991) has created. In the future we may hope that this psychodynamic view will contribute to the planning of treatment for drug abusers with PDs.

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