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**PERSONALITY CHARACTERISTICS RELATED TO
INTERPERSONAL RELATIONS AND SELF-PERCEPTION
MEASURED BY RORSCHACH (CS) AND SELF-REPORTED
INTERPERSONAL PROBLEMS BEFORE ENTERING THERAPY**

Tommi Sipari

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University of Jyväskylä

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Abstract

Personality characteristics related to interpersonal relations and self-perception measured by Rorschach (CS) and self-reported interpersonal problems before entering treatment

Tommi Sipari

Supervisors: Jarl Wahlstöm and Carl-Erik Mattlar

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University of Jyväskylä, department of psychology

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The aim of this study was to examine psychotherapy outpatients interpersonal relations and self-perception and personality features related to those functions before entering therapy. First, frequencies of critical values of Rorschach variables were viewed and the correlation structure of those variables was explored. Next, relations between control capacity and interpersonal relations and self-perception were examined, after which relations between coping- styles and those functions were also studied. Finally, relations between Rorschach and self-reported interpersonal problems were examined. Interpersonal relations, self-perception, control capacity and coping-style were measured by the Rorschach Inkblot Method according to the Comprehensive System (Exner, 1993), whereas the Inventory of Interpersonal Problems (Horowitz et al, 1988) was used as a measure of self-reported interpersonal problems. The subjects of this study came from the Helsinki Psychotherapy Study (HPS) (N = 150). Results indicate that the following features are quite common in this sample: ineffective interpersonal behaviours, negatively oriented self-perception, situationally low stress tolerance and inconsistent coping-style. In the background of the Rorschach variables there existed interpretatively meaningful correlation structures. High control capacity seemed to be related to significantly different findings in interpersonal relations and in self-perception. Relations between coping- style and interpersonal relations were similar to what was expected, but not between coping-style and self-perception. Rorschach and self-reported interpersonal problems were not significantly related.

Keywords: pretreatment assessment, Rorschach (CS), interpersonal relations, self-perception, control capacity, coping- style, Inventory of Interpersonal Problems (IIP)

Tiivistelmä

Tämän tutkimuksen tavoitteena oli tutkia psykoterapiapotilaitten ihmissuhteita ja omakuvaan sekä näihin toimintoihin yhteydessä olevia persoonallisuuden piirteitä ennen terapian aloittamista. Aluksi tarkasteltiin Rorschach- muuttujien kriittisten arvojen esiintymistiheyksiä ja näiden muuttujien korrelaatorakenne selvitettiin. Seuraavaksi tutkittiin kontrollikyvyn yhteyksiä ihmissuhteisiin ja omakuvaan, jonka jälkeen tarkasteltiin myös yhteyksiä coping- tyylien ja näiden toimintojen välillä. Lopuksi tutkittiin yhteyksiä Rorschachin ja itsearvioitujen ihmissuhdeongelmien välillä. Ihmissuhteet, omakuva, kontrollikyky ja coping- tyyli arvioitiin Rorschachin musteläiskämenetelmällä Exnerin (1993) järjestelmän mukaisesti, kun taas Inventory of Interpersonal Problems (Horowitz et al, 1988) oli mittarina itsearvioituille ihmissuhdeongelmille. Tutkimuksen otos oli peräisin Psykoterapia- projektin alkumittaustutkimuksista (N = 150). Tulosten perusteella seuraavat piirteet ovat melko yleisiä tässä otonnassa: huonosti toimivat ihmissuhteet, kielteinen omakuva, tilapäisesti madaltunut stressinsietokyky ja epävakaa coping- tyyli. Rorschach- muuttujien taustalta jäljitettiin tulkinnallisesti mielekäs korrelaatorakenne. Vahva kontrollikyky näytti olevan yhteydessä merkitsevästi erilaisiin löydöksiin liittyen ihmissuhteisiin ja omakuvaan. Yhteydet coping- tyylin ja ihmissuhteitten välillä olivat odotetun kaltaisia, mutta eivät coping- tyylin ja omakuvan. Rorschachin ja itsearvioitujen ihmissuhdeongelmien välillä ei ollut merkitsevästi yhteyksiä.

Avainsanat: alkumittausarviointi, Rorschach, Comprehensive System (CS), ihmissuhteet, omakuva, kontrollikyky, coping- tyyli, Inventory of Interpersonal Problems (IIP)

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The purpose of this study is to examine outpatients interpersonal relations and self-perception and personality features related to those functions in pretreatment assessment before entering psychotherapy. Frequencies of critical values of Rorschach variables related to those functions are examined as well as linear correlations between them. Their relations to control capacity and to personal coping styles are also studied. All these functions are assessed by the Rorschach inkblot method (RIM) according to Exner's comprehensive system (CS) (Exner 1993).

Distortions in interpersonal perception and self-perception might cause difficulties in a person's social functioning. Therefore, relations between interpersonal- and self-perception and the subjective experience of interpersonal problems are studied. The Inventory of Interpersonal Problems (IIP) (Horowitz, Rosenberg, Baer, Ureno and Villasenor, 1988) is used as a measure of experienced interpersonal problems. This comparison could provide information about personality features related to the experience of interpersonal problems.

Rorschach has been used earlier in psychotherapy studies (for example, Weiner & Exner's 1991, Exner & Andronikof-Sanglade, 1992, Abraham, Lovegrove-Lepisto, Lewis, Schultz & Finkelberg, 1994, LaBarbera & Cornsweet, 1985, Hilsenroth, Handler, Toman & Padawer, 1995). Most of those studies have been concerned with change during the psychotherapy process. In Weiner & Exner's (1991) and Exner & Andronikoff-Sanglade's (1992) studies the subjects were comparable to the sample of this study. On the basis of their findings, inferences can be made about psychotherapy outpatients' interpersonal relations, self-perception and control capacity before entering psychotherapy. These inferences are based on Exner's (1993) normative data and they will be utilized when hypotheses for this study are considered.

Firstly, interpersonal behaviours seem to be altered. Before entering psychotherapy almost one third of these subjects were in a more passive role in interpersonal relations ($p > a+1$) than is usual. One third of them also seemed to have decreased needs for closeness ($T=0$) as well as less interest in the other people ($H < 2$) than is expected in nonpatients.

There also seemed to be problems with self-perception. More subjects had narcissistic features ($Fr + rF > 0$) than is expected in nonpatients. Self-concerning behaviours were also altered in these samples. Close to one third of these subjects seemed to have a

tendency to overvalue personal worth ($3r + (2)/R > .43$) and even more subjects seemed to have a negative estimate of personal worth ($3r + (2)/R < .33$). In the samples of Weiner & Exner there occurred also more self-inspecting behaviours than is usual ($FD > 2$).

When those subjects' control capacity is viewed, it seems that nearly half of the subjects had lower than usual current control capacity ($D < 0$ or $D < AdjD$). About one third of the the subjects had chronically faltered control capacity ($AdjD < 0$) and almost one third of the subjects had less resources than is expected ($EA < 7$). Also more than one third of the subjects had an ambivalent coping style in these samples. This is more than is expected in nonpatient populations.

LaBarbera & Cornsweet (1985), Abraham et al. (1994) and Hilsenroth et al. (1995) have also reported on psychotherapy studies with Rorschach (CS). Subjects in Abraham et al (1994) and in LaBarbera & Cornsweet's (1985) studies were not comparable to this sample, whereas Hilsenroth et al. (1995) have reported only means of variables instead of baselines. For those reasons, findings of these studies could not be utilized when hypotheses were considered. However, those studies have confirmed Rorschach's validity and reliability in psychotherapy research. Not a single study has been reported, in which Rorschach would not have been a valid method for that purpose.

Experienced interpersonal problems are often a source of distress when subjects seek treatment. IIP is designed to identify those problems. This self-report inventory for interpersonal problems was introduced by Horowitz et al. (1988). It is intended to measure the types of interpersonal problems that people often experience and the level of distress associated with them. Horowitz et al. (1988) proposes that such a inventory is needed for at least three reasons: 1. A standardized inventory could be used to identify the most common types of interpersonal problems. 2. The inventory would help to specify what has been achieved through treatment. This might be used to identify interventions related to improvement on certain problems. 3. IIP could be used to differentiate between distress caused by interpersonal problems and distress from other problems.

IIP has proved to be a valid and reliable measure in previous psychotherapy studies (for example Horowitz et al., 1988, Barkham, Hardy and Startup, 1991 and Alden, Wiggins and Pincus, 1994). Horowitz et al. (1988) have reported findings on the IIP's full scale in patient and nonpatient populations. In a normative psychiatric sample, the mean value of

IIP was 1,474 (SD = 0,555), whereas in a student population the mean value was 1,189. In Barkham`s et al. (1991) study, psychotherapy outpatients mean value on the IIP`s full scale was 1,56 (SD 0,50, Alpha 0,96).

The aim of this study is to examine interpersonal relations and self-perception in the subjects who have sought treatment. Another objective is to examine, whether those functions are related to other personality characteristics: stress tolerance, coping styles and experienced interpersonal problems. These considerations might illuminate the problem fields of these subjects and relations between them in this sample.

First, frequencies of variables related to interpersonal- and self-perception and to control capacity are reviewed. According to previous studies (Weiner and Exner, 1991, Exner and Andronikof-Sanglade, 1992), the following frequencies of Rorschach variables are expected. In the interpersonal cluster, about one third of subjects are expected to have $p > a+1$, $T = 0$ or $H < 2$ and about half of them to have $H < (H)+Hd+(Hd)$. In the self-perception cluster, about one third of the subjects are expected to have an egocentricity index above the average range and one third less than average. More subjects are expected to have Reflections or increased self-inspecting behaviours ($FD > 2$) than is usual. When control capacity is viewed, about one third of the sample are expected to have $D < 0$, $AdjD < 0$ or $EA < 7$ and half of the subjects to have $D < AdjD$. One third of subjects are expected to have an ambitious coping style as well. Because frequency data of the critical values of the other variables used in this study might clarify the picture of these subjects, frequencies of $COP = 0$, $AG \geq 2$, $Isolate/R > .25$, $Vista > 0$, $MOR \geq 2$ and $S \geq 3$ are also viewed.

Second, the correlation structure of Rorschach variables is explored. Knowing which variables are correlated means that a deeper understanding of these subjects interpersonal and self-perceptual functioning could be acquired. Another reason why the factor analytic method seemed to be interesting is due the fact that so few of them have been carried out using Rorschach. If meaningful correlation structures exist beyond these variables, these correlations could be considered as hidden components.

Third, relations between interpersonal relations, self-perception and control capacity ($AdjD$) are explored by considering differences between subjects with greater, poorer and conventional control capacity. Exact hypotheses are not formulated because earlier research data in this area has not been reported. Exner (1993) has suggested that high

values of AdjD, which indicates a high stress tolerance, might be related to difficulties in treatment because it provides a capacity for greater resistance. This study could provide information about other personality features related to this characteristic. Findings might be utilized, when such difficulties are attempted to be overcome.

Fourth, relations between Rorschach findings and personal coping style are studied. According to Exner's (1991) normative data, EB groups are expected to have the following differences in interpersonal relations and self-perception. Introversives are predicted to have more active and passive movement, more human contents, more COP and more MOR than extroverts and ambiverts. Extroverts are supposed to have more Fd and a higher Isolate/R than the other groups. Ambiverts are expected to have more AG, more FD, more Vista, more Reflections and more Space responses than the others. Texture is expected to have almost similar elevations in all groups, similarly the egocentricity index is supposed to have comparable mean values in all groups

Fifth, relations between Rorschach findings and self-reported interpersonal problems are explored. According to Exner (1993), it can be hypothesized that increasingly reported interpersonal problems are related to higher frequencies of p, Fd, human contents, AG, MOR, Vista, Reflections and S, and to lower frequencies of T, a, COP and FD. Increased interpersonal problems are also expected to have relations to higher values of egocentricity and isolate/R indexes.

Methods

Subjects

The subjects of this study are from the Helsinki Psychotherapy Study (HPS). The HPS is carried out in co-operation between the Social Insurance Institution, the Rehabilitation Foundation, the Psychiatric clinic of Helsinki University Central Hospital, the Academy of Finland, and other sources. The study is financed by the Social Insurance Institution. The aim of that study is to assess the outcome of psychotherapy and as a part of it to compare the effects of different types of psychotherapy. The study material is comprised of patients suffering from depressive and/or anxiety disorders. In Finland, depressive and anxiety disorders form the most important disorder group causing working disability, and the relative importance of this group is growing. The aim is to gather a fairly homogenous group of patients from the Helsinki region who will receive individual psychotherapy. The following disorders and patient groups were screened out: patients under 20 and over 45 years of age, psychotic disorders and severe character disorders, patients with only mild mental problems (crisis reactions, etc.), intoxicant abusers, organic brain disease and other severe organic diseases, mental retardation, patients with less than 2 years since a previous psychotherapeutic treatment, psychiatric health care employees and persons known to the research team members (HPS Research plan, 1995). Demographic data of the sample is presented in table 1.

Table 1. Demographic data of the sample

N	150
Males	39
Females	111
Age range	20 - 45
Mean age	31,7

Measures and procedures

Rorschach measures

In the Structural summary of the CS, variables are divided to separate clusters, which refer to different personality functions. Among them are clusters for interpersonal relations, self-perception, affect and control capacity. Variables for this study were selected from these. Some variables were excluded because of their qualitative nature (see Exner, 1995).

The following variables were used in this study: active (a) and passive movement (p), food contents (Food), texture (T), pure human contents (PureH), fictive human contents (Hfict), aggressive movement (AG), co-operative movement (COP) and isolate/R (Isol) from the interpersonal relations cluster; morbid content (MOR), egocentricity index (Egocent), form dimension (FD), vista-responses (Vista) and reflections (Ref) from the self-perception cluster and white space responses (Space) from the affect cluster. S was included, because interpretatively it probably is related to interpersonal relations and self-perception. Exner (1993) has introduced findings related to frequencies of these variables. They are described in Appendix 1, as well as other Rorschach variables used in this study.

Interpersonal relations and self-perception might be related to other personality characteristics. This could be manifested in differences between different patient categories created by other Rorschach variables. In CS there exists several variables that could be used both to capture different personality characteristics and to create patient categories. Variables AdjD and EB seemed to be especially interesting for these purposes. Therefore, relations between these two variables and interpersonal relations and self-perception were studied.

AdjD is an indicator for control capacity. According to Exner (1993), subjects with greater control capacity have more sturdy controls and have more resources available than most people, whereas subjects with poorer controls are more vulnerable to the effects of stress. He also suggests that subjects with a greater control capacity might be more difficult to treat because of their greater resistance. However, other characteristics of those subjects have not been described. Therefore, it seemed to be important to explore, whether control capacity is related to interpersonal relations and self-perception. This information

might be utilized in therapy planning to avoid those difficulties, that Exner has described.

EB provides information about personal coping style. That style can be either introversive, extratensive or ambitent. Each style is related to rather different personality functions. Differences in interpersonal relations and self-perception have been reported between coping styles in Exner`s (1993) normative data. It seemed to be important to examine, whether findings concerning this sample are in the same direction. That would provide some data concerning the validity of Rorschach variables in this sample.

Rorschachs` were administred in pretreatment assessment. Protocols were collected by several psychologists, including the author of this study. They were coded by a CS-trained psychologist, for whom interrater reliabilities were calculated on the basis of 20 Rorschach protocols from the pilot study of PTP. They are presented in table 2. All variables except Special Scores reached highly adequate interrater agreement.

Table 2. Interrater reliabilities for Rorschach variables

Variable	%
Location	94
Developmental Quality	93
Determinants	89
active/passive	89
Form Quality	87
(2)	93
Contents	89
Populars	93
Z-scores	90
Special Scores	60

IIP

IIP consists of 127 items which are organized in two sections. The first section consists of claims which begin "It is hard for me to...". Claims in second section are formulated as "I am too...". These claims have to be assessed on a scale 1 (not at all) to 5 (a lot). According to these assessments, a sum score is calculated. This sum score can be considered as an overall measure of self-reported interpersonal problems. It is also considered as "compliment scale", which refers to a subjects overall tendency to report problems (Horowitz et al., 1988).

Subscales have also been developed for IIP. They are based on correlations between certain items. Horowitz et al (1988) originally demonstrated six subscales: Hard to be (H.) Assertive, H. Sociable, H. Intimate, H. Submissive, Too Responsible and Too Controlling. Barkham, Hardy and Startup (1991) were not satisfied with those scales and proposed a rather different solution also with six subscales: H. assertive, H. sociable, H. supportive, Too caring, Too dependent, Too aggressive, H. involved and Too open. Only two of them are similar to Horowitz`s scales. Alden, Wiggins and Pincus (1994) studied the relationship between the IIP and the interpersonal circumplex model. They presented a factor model in which IIP items are substituted to represent Leary`s (1957) circumplex scales. These subscales are: Domineering, Intrusive, Overly-nurturant, Exploitable, Nonassertive, Socially avoidant, Cold and Vindictive.

The IIP was translated into Finnish by a panel discussion method in the HPS. IIP has not been used in Finnish studies before. Thus, conclusions derived from this inventory must be considered carefully, because normative data for the Finnish population is not available. In any case, the IIP provides information about the amount of interpersonal problems a subject currently experiences.

In this study the sum score of the IIP was used as a measure of experienced, self-reported interpersonal problems. Subscales are not used, because they haven`t been validated in Finnish samples. Another reason to not use the subscales is that none of the subscale solutions have been globally accepted as a standard solution.

Relations between self-reported interpersonal problems and Rorschach findings were examined. On the basis of the sum score of IIP, three groups were formed which refer to

the amount of experienced problems. These groups were compared by Rorschach measures.

In this sample, alpha for 127 IIP items was 0,9682 that suggests that these items measure the same phenomenon. This supports the suggestion that IIP's sum score can be used as a complaint scale (Horowitz et al, 1988).

Procedures

The subjects for this study were directed to the HPS by health service authorities who had directed them to treatment. Subjects suitability was ultimately estimated in HPS. At intake, the assessment of the patients consisted of three semistructured interviews, laboratory tests, psychological tests, and questionnaires. Rorschach and IIP were included in this procedure. All the data was transferred to a SPSS-program, using which all the analyses were performed.

Frequencies of critical values of Rorschach variables were reviewed first. Second, variables were included to principal component analysis to uncover the correlation structures in the background of them. Those correlations might be considered as hidden components that would produce behaviours that is represented in elevations of frequencies of Rorschach variables.

Then, relations between control capacity and interpersonal relations and self-perception were studied. Four groups were formed according to the value of AdjD. These groups are -1 or less, 0, 1 and 2 or more. Subjects with AdjD more than zero were separated into two groups to obtain more information about the relationships to high values of this variable.

Next, differences between coping styles in interpersonal relations and self-perception were examined. For these comparisons, introversive ($n = 63$), extratensive ($n = 22$) and ambitent ($n = 65$) groups were formed on the basis of EB values.

Finally, three groups ($n = 50$ in each) of subjects were formed according to their sum scores on the IIP and it was examined if these groups differed from each other on Rorschach measures. The first group consists of subjects who reported few, the second who reported moderate and the third who reported a great amount of interpersonal problems.

Statistical methods

First of all, the frequency data of Rorschach variables in the pretreatment assessment was considered. Principal component analysis (PCA) was performed next to uncover the correlation structure between variables. Because of the non-normal distributions, factor analytic methods are often not recommended with measures such as Rorschach variables. However, Vuz and Zillmer (in Exner, 1995) have suggested that non-normal variables may be included in factor analysis without effecting the interpretability of the resulting model as much as was claimed earlier, as long as relations between variables can be expected. Besides, factor analysis has been performed successfully using extremely dichotomous data, for example on true-false items of the Minnesota Multiphasic Personality Inventory, MMPI (for example, Boyle, Ward & Lennon, 1994, Ward, 1997). PCA was chosen instead of a common factor model because of three reasons that make it more suitable for Rorschach research (Vuz & Zillmer in Exner, 1995). First, principal components are orthogonal with each other. This provides automatic partitioning of the variables. Second, results of PCA are designed to account for the highest percentage of the variation among the variables with as few principal components as possible. Third, PCA is less affected by problems of colinearity which Rorschach variables often exhibit, than the common factor model. The interpretability of the component model was also increased by rotation. Direct oblimin rotation was used, because it allows for the kinds of correlations between variables that are expected to exist between Rorschach variables (Exner, 1995) Before running the PCA, the correlation structure of these variables was reviewed and variables were selected for principal component analysis according to these correlations. Variables with poor correlations with others were excluded from the principal component analysis, as Zillmer and Vuz have also suggested (in Exner, 1995).

If AdjD-, EB- and IIP-groups differ from each other by other variables, those differences should appear in a oneway ANOVA-test (Nummenmaa et al, 1996). Therefore ANOVA was performed. In multiple comparisons of these analyses, the least significant difference (LSD) was used as a post hoc test.

Results

Frequencies of Rorschach variables

Table 3 shows that almost half of the subjects have $p > a + 1$ and even more than that have $T = 0$ or $H < (H) + Hd + (Hd)$. About one third of the subjects have $AG \geq 2$, $Food > 0$ or $Isolate/R > .25$ and one fifth $COP = 0$ or $Pure H < 2$.

TABLE 3. Frequency data of interpersonal variables in pretreatment assessment (N=150)

Variable	f	%
$p > a + 1$	65	47
$T = 0$	92	61
$T > 0$	58	39
Pure $H < 2$	29	19
$H < (H) + Hd + (Hd)$	97	65
$AG \geq 2$	43	29
$COP = 0$	33	22
$Food > 0$	52	35
$Isolate/R > .25$	54	36

When self-perception is viewed (Table 4), one fourth of subjects had a higher egocentricity index than an average, whereas almost half of them had a lower than average figure. One third of the subjects had Reflections, which is much more than is usual in nonpatients. Only ten per cent of subjects had $FD > 2$. One third of the subjects had $Vista > 0$ and half of them had two or more MOR. More than half of the subjects had three or more S's.

TABLE 4. Frequency data of variables related to self-perception and affect (N = 150)

Variable	f	%
$3r + (2)/R > .43$	39	26
$3r + (2)/R < .33$	69	46
$Fr + rF > 0$	49	33
$FD > 2$	15	10
$Vista > 0$	48	32
$MOR \geq 2$	76	51
$S \geq 3$	92	61

Table 5 shows findings related to control capacity and coping style. Only one fifth of the subjects had $D < 0$ or $EA < 7$, but almost half of them had $D < AdjD$. $AdjD < 0$ is quite uncommon in this sample, only six per cent of the subjects had this finding. 43 % of the subjects are ambitents, 42 % introversives, but only 15 % extratensives.

TABLE 5. Frequency data of variables related to control capacity and coping style (N=150)

	Variable	f	%
Control capacity	$D < 0$	28	19
	$D < AdjD$	67	45
	$AdjD < 0$	10	6
	$EA < 7$	28	19
Coping style	Introversive	63	42
	Extratensive	22	15
	Ambitent	65	43

Principal component analysis

The correlation matrix was explored first (see Appendix 2). Texture did not correlate with other variables and it was excluded from further analyses. Neither did Isolate/R have very high correlations, but it was not excluded because this was interpretatively expected. Either Reflections or the Egocentricity index had to be dropped because the former is included in the latter. If both were included in the PCA analysis, distortions would have been caused. It was decided to exclude the Egocentricity index because of its slightly poorer correlations with other variables. Human content responses were divided into pure human contents and fictive human contents.

TABLE 6. Descriptive statistics and communalities of the PCA of Rorschach variables

Variable	Mean	SD	Initial	Extraction
a	6,40	4,05	1,000	0,751
p	6,70	3,84	1,000	0,604
Food	0,54	0,92	1,000	0,373
Pure H	3,29	1,98	1,000	0,550
H Fict	5,18	3,13	1,000	0,679
AG	1,16	1,41	1,000	0,518
COP	1,93	1,62	1,000	0,746
Isolate/R	0,22	0,13	1,000	0,546
Reflections	0,57	1,03	1,000	0,316
FD	1,08	1,16	1,000	0,408
Vista	0,43	0,70	1,000	0,431
MOR	2,12	2,13	1,000	0,527
Space	4,09	3,25	1,000	0,549

According to table 6, communalities of the variables seem to reasonable. Thus, their component structure can be considered to be reliable.

TABLE 7. Total variance explained by the component structure of Rorschach variables

Component	Initial eigenvalues			Extraction Sums of Squared Loadings		Rotation Total
	Total	% of Variance	Cumulative %	% of Variance	Cumulative %	
1	4.375	33.655	33.655	33.655	33.655	3.386
2	1.414	10.877	44.532	10.877	44.532	1.931
3	1.208	9.291	53.823	9.291	53.823	3.168
4	0.976	7.504	61.328			
5	0.931	7.158	68.486			
6	0.776	5.969	74.454			
7	0.770	5.922	80.376			
8	0.613	4.714	85.090			
9	0.503	3.869	88.959			
10	0.461	3.543	92.502			
11	0.436	3.354	95.856			
12	0.325	2.504	98.359			
13	0.213	1.641	100.000			

A cumulative percentage 53.823 of the explained variance is reasonable for three components (Table 7). Because a fourth component also has an eigenvalue close to one, a four component solution was tried. However, in that solution, the component structure turned out to be inconsistent.

Table 8 shows the component solution resulting from a direct oblimin rotation. Four variables, AG, FD, p and Hfict, had significantly high (>.25, according to Zillmer and Vuz, in Exner, 1995) loadings to more than one component.

According to interpretative meanings of the variables, the first component could be named as *imaginery, negative attitude toward self and environment*, because Hfict had the highest correlation to this component and Space, MOR and Vista had almost similar correlations. The high correlation with passive movement and a moderate correlation with AG are also noteworthy.

TABLE 8. Pattern matrix (oblimin rotated loading matrix). Rotation converged in 21 iterations.

Variables	Component		
	Imaginery, negative attitude	Isolated, naive self- concept	Social dynamics
a			.767
p	.568		.267
Food		.543	
Pure H			.596
H Fict	.758	-.308	
Isolate/R		.738	
AG	.363		.519
COP			.897
Reflections		.519	
FD		.504	.342
Vista	.651		
MOR	.678		
Space	.692		

*Correlations >.25 are reported

The second component was named as *isolated, naive self-conception*. This is based on the Isolate/R: s highest correlation with this component. Food and Reflections refer to naive and immature self-conception. FD probably relates to narcissistic subjects self-concerning behaviours. Hfict` s moderately high negative correlation is also noticeable.

The third component relates to more effective behaviours. It was named as *social dynamics*, because of the highest correlations with COP and active movement. AG and Pure H also refer to adequate social behaviours. FD` s moderate correlation probably indicates self-examining behaviours.

Component structure seems to be interpretatively meaningful. It will be reviewed in the discussion section.

Direct oblimin rotation allows correlation between components. The highest correlation, 0.36, exists between the first and third components (Table 9). According to the contents of components, this indicates that in this sample, socially dynamic behaviours are related to

a negative attitude to some extent.

TABLE 9. Component correlation matrix

Component	Naiv self-concept	Social dynamics
Negative attitude	.220	.360
Naive self-concept		.144

Adjusted D score and interpersonal perception

Four groups were formed according to the value of Adj D. These groups are -1 (n = 10), 0 (n = 56), 1 (n = 38) and 2 or more (n = 46). These four groups were compared in a oneway analysis of variance by interpersonal relations (Active and Passive movement, COP, AG, Isolate/R, Texture, Food and Human Contents), by self-perception (Reflections, FD, Vista and MOR) and by components derived from PCA. LSD was used as a post hoc test. Relations between the component scores and D-score values were also examined.

In table 10, relations between AdjD and interpersonal perception are presented. Adj D = 2 group had significantly more active movement responses on .05 level when compared to the other three groups. These results indicate that the number of the active movement responses tends to increase as the value of Adj D grows. There is not such a clear trend in the number of passive movement responses. The Adj D = 2 group had again the greatest number of them, but this was significantly more ($p < .01$) only when compared to the groups AdjD = 0 and 1. These findings about elevations of different types of movement responses are interesting, because in groups AdjD = 0, 1 and 2 the number of active and passive answers seems to be rather similar, but in group AdjD = -1 the number of passive movement responses is interpretatively greater than the number of active movement responses.

The Adj D = 2 group had also significantly more AG responses than all the other groups

($p < .01$). The number of COP responses seems to have the same kind of trend, although the only significant difference ($p < .01$) is between groups the AdjD = 2 and 0. It seems that

TABLE 10. AdjD and interpersonal perception

Variables	Means and standard deviations (SD:s in brackets) by AdjD value *				F-Ratio	F-Prob
	-1	0	1	2		
a	5,00 (3,92)	5,30 (3,37)	6,00 (3,10)	8,37 (4,84)	6,0805	0,0006
p	6,60 (3,41)	5,93 (3,73)	6,03 (3,38)	8,22 (4,07)	3,7375	0,0126
Food	0,60 (1,08)	0,39 (0,65)	0,53 (0,89)	0,72 (1,17)	1,0561	0,3698
Texture	1,00 (1,15)	0,57 (0,78)	0,32 (0,52)	0,54 (0,78)	2,3683	0,0732
H Total	7,10 (2,64)	6,73 (3,18)	8,08 (3,36)	11,22 (4,91)	12,4029	0,0000
Pure H	2,60 (2,01)	2,57 (1,68)	3,34 (1,68)	4,28 (2,17)	7,5780	0,0001
Fict. H Cont.	4,50 (2,84)	4,16 (2,41)	4,74 (2,74)	6,93 (3,58)	8,2755	0,0000
AG	0,50 (0,71)	0,86 (1,10)	0,97 (1,10)	1,83 (1,82)	5,7349	0,0010
COP	1,50 (1,43)	1,52 (1,56)	2,05 (1,52)	2,41 (1,70)	3,0011	0,0326
Isolate/R	0,19 (0,19)	0,23 (0,12)	0,21 (0,13)	0,23 (0,12)	0,4958	0,6857

*Number of subjects: -1 = 10, 0 = 56, 1 = 38 and 2 = 46

increased values of AG and COP are both related to Adj D, although this trend is more clear with AG.

The total number of human contents is also significantly greater in the Adj D = 2 group than in the other groups ($p < .01$). Interpretatively these values indicate that subjects in groups AdjD = 2 and 1 are more interested in other people than is usual. On the other hand, according to these results subjects in two other groups also show at least a usual interest in other people. When only pure human responses are viewed, group AdjD = 2 differs again significantly ($p < .05$) from all the other groups as well as by fictive human contents ($p < .05$). These findings can be fitted to the ratio H:(H)+Hd+(Hd). For the group AdjD = 2 this ratio is 4,28:6,93, for group the AdjD = 1 3,34:4,74, for the group AdjD = 0 2,57:4,16 and for the group AdjD = -1 2,6:4,50. Thus, it seems that in all groups the ratio is weighted on the fictive contents, although, rather surprisingly, this tendency is slightly stronger in groups AdjD = 2 and -1. Findings related to Texture show a statistically

significant difference ($p < .05$) between groups AdjD = -1 and 1. Interestingly, only in the group AdjD = -1, does T have a mean value of one.

Variables Food and Isolate/R failed to create statistically significant differences between the AdjD groups. Surprisingly, the highest mean in Food contents are in the AdjD groups AdjD = -1 and 2. The values of Isolate/R are almost similar and interpretatively insignificant in all groups.

Adjusted D-score and self-perception

Table 11 presents the relationship between AdjD and self-perception. Affect-related variable Space is also included in this table.

When Adj D-groups were compared by the Egocentricity index, a statistically significant difference ($p < .05$) appeared between the groups AdjD = 1 and -1. The mean value ,29 of group AdjD = -1 is also interpretatively low.

MOR produced significant differences ($p < .05$) between groups AdjD = 2 and 1. This suggests that both low and high values of Adj D are related to an increased frequency of

TABLE 11. AdjD, self-perception and affect

Variables	Means and standard deviations (SD:s in brackets) by AdjD value *				F-Ratio	F-Prob
	-1	0	1	2		
Egocentricity	0,29 (0,09)	0,34 (0,14)	0,40 (0,17)	0,36 (0,14)	2,2231	0,0880
Reflections	0,10 (0,32)	0,43 (0,83)	0,66 (1,34)	0,76 (1,03)	1,6789	0,1741
FD	0,50 (0,53)	0,93 (1,18)	1,13 (1,19)	1,35 (1,15)	2,0297	0,1123
Vista	0,40 (0,52)	0,41 (0,71)	0,37 (0,63)	0,50 (0,78)	0,2677	0,8486
MOR	2,30 (2,45)	1,88 (1,63)	1,74 (1,64)	2,70 (2,79)	1,8368	0,1430
Space	3,90 (2,28)	3,91 (2,87)	3,66 (2,83)	4,70 (4,08)	0,8216	0,4839

*Number of subjects: -1 = 10, 0 = 56, 1 = 38 and 2 = 46

MOR-responses. Frequencies of FD seem to have a trend according to the value of AdjD, although the difference is statistically significant ($p < .05$) only between the groups AdjD = 2 and -1. Thus, it seems that a better control capacity is related to increased self-inspecting behaviours.

Variables Vista and Reflections did not produce statistically significant differences between groups. It seems that Reflection answers, which relate narcissistic features, are also related to values of AdjD, although there are no statistically significant differences between the groups. A higher AdjD-value seems also to be related to an increased frequency of S.

D-scores and Rorschach components

Components derived from the principal component analysis of Rorschach measures were used as variables and their relations to the values of AdjD were studied by a oneway analysis of variance. LSD was used as multiple range test. The values of D-scores were also used in this consideration to examine if these underlying factors are related to situational stress. Three groups were formed according to the D-score: minus one or less ($n = 28$), zero ($n = 67$) and plus one or more ($n = 55$). Oneway ANOVA was carried out for these groups also. Results are presented in tables 12 and 13.

The first component, *imaginery, negative attitude* produced significant differences ($p < .01$) between groups Adj D = 2 and Adj D = 1 and 0, but not between groups AdjD = 2 and -1. Thus, it can be hypothesized, that members of group AdjD = 2 have more negativistic attitudes towards self and others than members of other groups. When D-score groups were compared on this component, the D-score = -1 group differed significantly ($p < .05$) from the other two groups. This finding suggests that also situational stress is related to more negativistic attitudes.

The second component, *isolated, naive self-conception*, did not produce significant differences between either AdjD or D-score groups. It looks like group -1 has a weak negative relation to this component and that the other groups have no relation at all.

The third component, *social dynamics*, reached a statistically significant ($p < .05$) higher

value in group Adj D = 2 than in the other AdjD groups. This finding suggests that a higher value of AdjD is related to socially more dynamic behaviours. There seems to be a clear trend between these two variables as well. The D-score groups were not significantly different on this component.

TABLE 12. AdjD and Rorschach components

Means and standard deviations (SD:s in brackets) by AdjD value *						
Variables	-1	0	1	2	F-Ratio	F-Prob
Negative attitude	-0,06 (0,61)	-0,19 (0,79)	-0,22 (0,84)	0,43 (1,27)	4,3834	0,0055
Naive self-concept	-0,28 (1,28)	-0,04 (0,91)	0,01 (0,97)	0,10 (1,08)	0,4415	0,7237
Social dynamics	-0,46 (0,76)	-0,37 (0,92)	0,01 (0,88)	0,53 (1,01)	8,7590	0,0000

*Number of subjects: -1 = 10, 0 = 56, 1 = 38 and 2 = 46

TABLE 13. D-score and Rorschach components

Means and standard deviations (SD:s in brackets) by D-score *					
Variables	-1	0	1	F-Ratio	F-Prob
Negative attitude	0,49 (1,15)	-0,17 (0,85)	-0,05 (1,02)	4,5913	0,0116
Naive self-concept	-0,07 (1,17)	0,15 (0,87)	-0,15 (1,04)	1,5195	0,2222
Social dynamics	-0,07 (1,24)	-0,12 (-0,12)	0,19 (0,81)	1,5433	0,2171

*Number of subjects: -1 = 28, 0 = 67 and 1 = 55

Personal coping style (EB) and interpersonal perception

The sample was divided into three subgroups according to their personal coping style. These groups are introversives (N = 63), extratensives (N = 22) and ambitents (N = 65). Again, oneway ANOVA was carried out with LSD as a post hoc test.

Table 14 shows the relations between EB and interpersonal perception. Active movement differentiated significantly ($p < .01$) between introversives and other styles. The same trend appeared with passive movement responses. Introversives had significantly ($p < .001$) more of them than ambitents and extratensives.

Introversives had significantly more AG-responses ($p < .01$) and COP-responses ($p < .01$) than both extratensives and ambitents. The difference between ambitents and extratensives is also significant ($p < .05$) in COP. These differences are partly created by technical reasons, but there is a psychological side of the coin also.

TABLE 14. EB-styles and interpersonal perception

Means and standard deviations (SD:s in brackets) by coping styles*					
Variables	Introversive	Extratensive	Ambitent	F-Ratio	F-Prob
a	7,90 (3,85)	4,77 (3,18)	5,49 (4,06)	8,5420	0,0003
p	8,19 (3,95)	4,36 (3,29)	6,05 (3,34)	11,0899	0,0000
Food	0,43 (0,86)	0,86 (1,17)	0,54 (0,89)	1,8270	0,1645
Texture	0,51 (0,76)	0,55 (0,67)	0,54 (0,81)	0,0327	0,9678
H Total	10,44 (4,40)	5,50 (3,39)	7,57 (3,37)	16,6704	0,0000
Pure H	4,29 (2,12)	1,91 (0,97)	2,80 (1,62)	18,8863	0,0000
Fictive H Cont.	6,16 (3,36)	3,59 (2,91)	4,77 (2,67)	7,0046	0,0012
AG	1,65 (1,59)	0,50 (0,74)	0,91 (1,25)	7,9468	0,0005
COP	2,56 (1,59)	0,86 (0,99)	1,68 (1,57)	11,7630	0,0000
Isolate/R	0,20 (1,12)	0,31 (0,15)	0,21 (0,12)	6,6514	0,0017

*Number of subjects: introversives 65, extratensives 22 and ambitents 63

The total number of human contents was considered next. Introversives had significantly ($p < .001$) more of them than both extratensives and ambitents. Ambitents also had

significantly ($p < .05$) more of them than extratensives.

When pure human contents were focused on, the differences between the groups attained significance ($p > .001$). Also fictive human contents differentiated significantly ($p < .01$) between introversives and the two other groups. H:(H)+Hd+(Hd) ratios of the different groups are: introversives 4,29:6,16, extratensives 1,91:3,59 and ambitents 2,80:4,77.

Extratensives had an interpretatively higher mean score on Isolate/R and more Food responses than the other groups. These differences are not statistically significant. Texture had almost similar elevations in all groups.

Personal coping styles (EB) and self-perception

Relations between EB and self-perception are presented in table 15. Introversives had a significantly ($p < .05$) higher egocentricity Index and more FD-responses ($p < .05$) than the other groups. The low value of extratensives is also interpretatively significant.

Variables Vista, MOR and Reflections did not create statistically significant differences

TABLE 15. EB-styles and self-perception

Means and standard deviations (SD:s in brackets) by coping styles*					
Variables	Introversive	Extratensive	Ambitent	F-Ratio	F-Prob
Egocentricity	0,41 (0,15)	0,28 (0,18)	0,33 (0,12)	8,7794	0,0003
Reflections	0,65 (1,03)	0,55 (1,10)	0,49 (1,02)	0,3792	0,6851
FD	1,49 (1,37)	0,82 (0,91)	0,77 (0,88)	7,4414	0,0008
Vista	0,38 (0,66)	0,41 (0,67)	0,48 (0,75)	0,3073	0,7359
MOR	2,30 (2,37)	2,05 (2,10)	1,97 (1,90)	0,4033	0,6689
Space	4,24 (3,53)	3,55 (2,81)	4,12 (3,14)	0,3743	0,6884

*Number of subjects: introversives 65, extratensives 22 and ambitents 63

between EB-groups. Ambitents had slightly more Vista than introversives and extratensi-

ves, whereas introversives had more MOR than the other groups. Reflections and S-responses tend to be a little more common among introversives.

Personal coping styles (EB) and Rorschach components

Table 16 shows findings related to EB-styles and components. A negative attitude component did not create significant differences between the groups. Extratensives had significantly ($p < .05$) greater mean scores on the isolated, naive self-conception component than ambitents, but it failed to be significantly greater than the introversives mean value. Social dynamics produced more differences. The introversives mean value was significantly ($p < .05$) greater than the values for ambitents and extratensives. The difference between extratensives and ambitents is also statistically significant ($p < .001$).

TABLE 16. EB-styles and Rorschach components

Means and standard deviations (SD:s in brackets) by coping styles*					
Variables	Introversive	Extratensive	Ambitent	F-Ratio	F-Prob
Negative attitude	0,16 (1,03)	-0,28 (0,96)	-0,06 (0,97)	1,8237	0,1651
Naive self-conception	-0,04 (1,16)	0,44 (0,78)	-0,12 (0,86)	2,6664	0,0729
Social dynamics	0,58 (0,87)	-0,82 (0,65)	-0,28 (0,90)	28,4686	0,0000

*Number of subjects: introversives 65, extratensives 22 and ambitents 63

Interpersonal problems and Rorschach variables

Finally, IIP was considered. Mean value of IIP was 1,505 and standard deviation 0,484 (Table 17). Three equal groups ($n = 50$) were formed on the basis of the amount of reported interpersonal problems. The first cutting-off point was 1,297. Subjects with less than this value were considered as a subgroup with minor interpersonal problems. The se-

cond cutting-off point was 1,724. Subjects whose IIP-value was placed between these two

TABLE 17. Statistical data of IIP

Mean	1,505	Variance	0,234
Median	1,504	Range	2,307
Standard deviation	0,484	Minimum	0,299
		Maximum	2,606

points formed a subgroup with a moderate amount of interpersonal problems. The last group was formed from subjects with IIP-values 1,724 or more. They were considered as a group with plenty of interpersonal problems. These groups were compared by Rorschach variables.

Results from these comparisons are presented in table 18. The subgroup with plenty of

TABLE 18. Mean values of Rorschach variables in IIP-groups

Means and SD:s by amount of interpersonal problems reported by IIP*					
Variables	Minor	Moderate	Plenty	F-Ratio	F-Prob.
<i>Interpersonal perception</i>					
a	5,88 (3,46)	6,20 (3,71)	7,12 (4,83)	1,268	,285
p	6,58 (3,96)	6,06 (3,37)	7,46 (4,09)	1,716	,183
Food	0,58 (0,88)	0,52 (0,93)	0,52 (0,97)	0,069	,933
Texture	0,64 (0,75)	0,42 (0,76)	0,52 (0,79)	1,035	,358
H Total	7,74 (3,82)	8,80 (4,52)	8,88 (4,30)	1,135	,324
AG	1,08 (1,26)	0,84 (1,27)	1,56 (1,61)	3,494	,033
COP	1,76 (1,53)	1,74 (1,40)	2,28 (1,86)	1,809	,167
Isolate/R	0,23 (0,10)	0,21 (0,13)	0,23 (0,16)	0,375	,688
Space	3,82 (3,21)	3,74 (3,09)	4,70 (3,42)	1,349	,263
<i>Self-perception</i>					
Egocentricity	0,35 (0,14)	0,37 (0,16)	0,37 (0,14)	0,247	,781
FD	1,06 (1,17)	1,14 (1,26)	1,04 (1,67)	0,103	,903
Vista	0,34 (0,66)	0,42 (0,70)	0,52 (0,74)	0,832	,437
Reflections	0,56 (0,86)	0,68 (1,28)	0,46 (0,91)	0,566	,569
MOR	1,72 (1,91)	1,92 (1,96)	2,72 (2,39)	3,187	,044

*N = 50 in all groups

interpersonal problems had more active and passive movement, more human contents, more AG, more MOR, more Vista, more Space and more COP than the other groups whereas they had less Texture and Reflections than the others. The Egocentricity index, FD and Isolate/R variables had almost similar elevations in all groups. The only significant differences ($p < .05$) existed between the third and second group on AG and between the third and first group on MOR.

Discussion

Interpersonal relations

The results show that 47 % of the subjects had $p > a + 1$. This is even more than was expected and indicates that passivity in interpersonal relations is a common feature in this sample. This passivity might sometimes have a dependent nature, because 35 % of the protocols had also Food contents. When Texture is considered, 61 % of the protocols were T-less. That is also more than was predicted. This finding indicates, that guardedness and/or detachedness are common features in this sample. The absence of texture responses has been also understood to reflect a massive warding off or neutralizing of affectional needs (Kleiger, 1997). Detachedness might be related to the fact, that one third (36 %) of the subjects had an Isolate/R of .25 or more, which usually indicates a decreased participation in social interaction. In spite of these findings, there is a less than expected number of Pure $H < 2$, which would have referred to a decreased interest in other people. On the other hand, their ideas about the self and other people seem often to be imaginary based, since 65 % of the subjects have $H < (H) + HD + (Hd)$. That is also more than was expected. When the special scores AG and COP are considered, almost one third of the subjects (29 %) had $AG \geq 2$. Interpretatively this means that aggression is seen as a part of normal interaction. In this context it should be remembered, that increased AG-responses are usually related to socially accepted forms of aggression (Exner 1993). Only 22 % of subjects had COP = 0. This means that almost eighty per cent of subjects had at least one COP-response, which indicates that positive interaction is almost routinely perceived between people.

Self-perception

A slightly less than expected number of subjects had a higher than average value on the Egocentricity index (26 %), which means that these subjects overestimate their personal worth. These features are possibly related to an unexpectedly high number of Reflections (33%), which are related to narcissistic elements in self-concept. More subjects than expected had a lower value than average (46 %) on that index. This finding indicates a more negative estimate of personal worth than is usual and that these subjects probably

consider themselves less favorably, when compared to others. $FD > 2$ has a lower than expected frequency in this sample (10 %), whereas the presence of Vista is quite common (33 %). Those findings indicate some kind of unusual self-examination. Because of the higher frequency of Vista, it can be hypothesized that these subjects self-examination is often focused on perceived negative features of the self. Such behaviours might be related to a negative estimate of personal worth. $MOR \geq 2$ is also common in this sample, 51 %, which means that half of these subjects are likely to have some negative components in their self-image. 61 % of the subjects have three or more S-responses, which indicate a negative, hostile attitude towards the environment. That negativity does not necessarily manifest in behaviour, but it might have some impact on decision making and coping-activities.

Findings concerning T, MOR, V and S are in the same direction as what has been reported by Archer & Krishnamurthy (1997). They found a lower frequency of T and higher of MOR, V and S in a psychiatric adolescent sample than in Exner's (1993) normative sample of a comparable age. Parallel findings, including increased Reflection responses, have been reported also in Exner's (1993) descriptive statistics for psychotherapy outpatients. Thus, the validity of those variables to indicate a subjects need for treatment is confirmed.

Control capacity and coping style

Less than the expected number of subjects had $D < 0$ or $AdjD < 0$. This indicates that both situational and chronic stress tolerance are better in this sample than was predicted. Also $EA < 7$ has lower frequency than was predicted, which indicates that many of these subjects have more available resources than was expected. As hypothesized, almost half of the subjects have $D < AdjD$. This indicates that those subjects stress tolerance was situationally distorted in pre-treatment assessment. Slightly more subjects than was predicted, 40 %, had an ambitent coping style. The low number of extratensive subjects is rather surprising and must be kept in mind when results of the comparisons of EB-groups are considered.

Principal component analysis

In spite of the non-normal distributions of the Rorschach variables, PCA resulted in a

relatively clear and interpretatively meaningful component structure, although some variables had significant loadings to more than one component. According to Weiner (1995), these kind of components represent lineary correlated characteristics. On the other hand, these correlations can also be considered as hidden components, that have caused elevations in particular variables. The PCA resulted in three components with an eigenvalue of more than one, which explained more than 53 % of the variance. That can be considered adequate for three components.

The first component explains the greatest amount of variance, more than 33 %. It was named *imaginery, negative attitude toward self and environment*. This name was given, because fictive human contents [(H)+HD+(Hd)] had highest loading on this component, whereas Vista, MOR and Space had almost similar loadings. Also passive movement responses loaded to this component nearly as high. AG had clearly lower, although significant, loading. Fictive human contents indicates that ideas of other people are based on imaginary rather than real experiences. Variables Vista, MOR and Space relate to somehow negatively and/or pessimistic oriented attitudes or behaviours. Passive movement responses relate to passivity in interpersonal relations. It could be hypothesized that beyond these linear correlations is a factor that represents some kind of common negativity, that is related to imaginary rather than to real experiences. When the context of assessment is noted, this component seemed to be reasonable. Negative or even hostile thoughts and attitudes are probably not unusual among subjects who are seeking treatment.

The second component was called *isolated, naive self-concept*. Isolate/R had the highest loading on this component and Food contents, Reflections and FD almost similar loadings. Surprisingly, fictive human contents had a significant, negative loading on this component. This component is rather confusing at first sight, but makes more sense when these variables are considered closer. Isolate/R is related to a decreased participation in social interaction or even to social isolation. Food contents refer to dependent behaviours and also to naive expectations about interpersonal relations. Reflections indicate a dominant, narcissistic element in self-concept, that is typical in children, but not in adults. FD indicates self-examination, that is not necessarily pathological. In this context, it might be related to narcissistic tendencies. Thus, it could be hypothesized that in subjects, who achieve a high score on this component, naive and self-focused elements of personality

have caused an inability to form object relations and this feature has led to isolation. On the other hand, the relation between these variables could be in other direction. For example, the subject could have experienced disappointments in social life, that could have caused isolation. Narcissism is then used to protect one's self-image as a naive form of defensiveness. Negative loading of Fictive human contents is rather surprising and difficult to explain. Maybe the narcissism, that these people experience, has had some reinforcement from real life experiences. It would be interesting to study, if this component is related to other factors, such as intelligence, education, occupational success etc.

The third component, *social dynamics*, seems to be related to more effective interpersonal behaviours. Co-operative movement responses had the highest loading on this component and active movement responses the second highest. Pure human contents loaded also highly and AG had it's highest correlation on this component. Passive movement responses and FD had also significant loadings, although they had higher loadings to other components. COP is related to positive expectations about human interaction and active movement responses indicate a more active role in such situations. The high loading of Pure human contents suits well to this picture as those responses represent an interest in other people. AG might be related to more aggressive forms of interaction, but the presence of COP's probably indicates that in this case they are related to socially accepted forms of aggression and to the capability to stand up for oneself. Because FD was also loaded to this component, it can be concluded that some positive forms of self-examination is also related to this component. Passive movement responses loaded quite weakly, although significantly. That loading might have resulted from technical effects, such as the high loading of Pure human contents, which are often related to movement responses. To summarize, the variables that have the highest loadings on this component, indicate interests in other people and expectations of positive interaction. Subjects with a high score on this component are probably socially effective and outgoing. They tend to be active in interpersonal relations, but they have also reflective capacity.

When correlations between components are considered, the highest correlation (.36) exists between *social dynamics* and *imaginary, negative attitude*. This is rather surprising, but is easier to understand, when the fact that these people have sought treatment, is kept in mind. *Imaginary, negative attitude* and *isolated, naive self-concept* had the second high

correlation (.22) and *Social dynamics* and *isolated, naive self-concept* had the lowest (.144). Low correlations between components suggest that these components refer to separate factors.

AdjD and interpersonal relations

Group AdjD = 2 seems to differ remarkably from the other groups on the variables of the interpersonal cluster. Interestingly, the AdjD = 2 group has the highest means on almost every variable and in most of the comparisons, differences reach statistical significance. They have most active and passive movement responses, Food contents, Human contents, AG and COP. They often reach also interpretatively higher values than is usual, whereas other groups are mostly within the average range.

Thus, when AdjD = 2 group is compared to other groups, it can be concluded that in this sample AdjD = 2 seems to be related to increased interests in other people and to elevated expectations of positive interaction. It also seems to be related to dependency and possibly to decreased needs of closeness. It is also notable, that in group AdjD = -1 the number of passive movements was greater at one point than number of active movements. Interpretatively this indicates a more passive role in interpersonal relations. AdjD = -1 was also the only group in which T had a mean value of one, as is expected in a normal population. It could be hypothesized that because of their lower control capacity, they expect more closeness from others as support.

These findings provide additional information on the personality features related to high control capacity. Such subjects are probably very keen on other people and they seem to have active interpersonal relations which presumably provide them with support. A high amount of movement responses also indicates better inner resources. On the other hand, there seems to be also tendencies to negativism, dependency and decreased needs of closeness. A high number of Human contents might also reflect a marked sense of guardedness (Exner, 1993).

In this context it is appropriate to view the findings of Hilsenroth's et al. (1995) study of Rorschach measures of premature psychotherapy termination. They concluded that an increased number of COP and a fewer number of Texture and AG - responses were related to premature psychotherapy termination. They hypothesized that such subjects have less

needs for closeness, but more cooperative relationships outside treatment, compared with persons who remain in treatment. Thereby the risk of leaving treatment too early increases, because they probably do not expect the experience of closeness from interaction with the therapist. According to their findings, that risk might be present in group AdjD = 2: they have more COP - responses and less Texture responses than the other groups (the only exception is AdjD = 1 group, in which Texture have lower mean). On the other hand, they have higher mean on AG than is reported in Exner's (1993) normative data, which is opposite to the dropouts of Hilsenroth et al. (1995) study. However, they did not offer any interpretative explanation about the relation between AG - responses and treatment dropout. The fact that control capacity is much higher than on average in group AdjD = 2 could even increase that dropout risk, because it is possible that this capacity is used to serve resistance. These risks should be kept in mind in therapy planning. This might also be an interesting issue for further investigations.

AdjD and self-perception

Again, group AdjD = 2 had the highest mean scores on most measures. Although differences did not reach statistical significance as often as on interpersonal perception, it seems that group Adj = 2 clearly differs from the other groups also on their self-perception. They had the highest means in Reflections, FD, Vista, MOR and Space. Only on the Egocentricity index, did group AdjD = 1 have the highest mean value. It is also notable that AdjD = -1 had an interpretatively low value on this index. That indicates a negative estimate of personal worth. Surprisingly, the highest means of MOR were in AdjD-groups -1 and 2.

Interpretatively these findings indicate that subjects with AdjD = 2 tend to have more narcissistic tendencies, more self-examining behaviours and more pessimistic and negativistic attitudes toward self and environment than other subjects. Both a high and low control capacity seem to be related to increased negative features in self-concept. This is rather surprising and not very easily explained. An increased tendency to self-examination is a positive finding in group AdjD = 2. That is often considered as a favourable indicator for therapy. In this context, it might provide a counterbalance for risk factors that were recognized in this group.

D-scores and Rorschach components

Group AdjD = 2 had statistically the highest mean values on the components *Imaginary*, *negative attitude* and *Social dynamics*. Thus, when the contents of components is known, it can be concluded, that AdjD = 2 is related to socially more dynamic behaviours and also to more negative attitudes. This provides support for the findings from the interpersonal- and self-perception clusters.

When D-scores were considered, group D = -1 had significantly the highest mean on the *Imaginary, negative attitude* component. This finding suggests that situational stress is related to more negative attitudes. Differences between groups on other components did not reach statistical significance.

Personal coping styles (EB) and interpersonal relations

As expected, introversives had the most both active and passive movement responses, COP-responses and human contents. Also as predicted, extratensives had a higher mean score on Isolate/R and more Food responses. Texture had almost similar elevations in all groups, as hypothesized. Unlike expected, introversives a had higher mean on AG-responses than the other groups. Introversives high values on active and passive movement are partly created by technical reasons, because M-responses, which are a precondition for introversiveness, always include either code. However, there is a psychological side also. Extratensives high value on Food contents is interpretatively related to dependency and their high value on Isolate/R indicates social isolation. They also had very low means on COP and AG, which might indicate less effective social behaviours

Personal coping styles (EB) and self-perception

Unlike expected, introversives had the highest mean on the Egocentricity index and more FD's, Reflections and Spaces than the other groups. Findings concerning Vista, MOR and Reflections, are in the predicted direction. These findings suggest that extratensives had a more negative estimate of themselves, whereas introversives have more narcissistic features and clearly more self-examining behaviours and more pessimistic and negative attitudes. Ambitents seem to have more self-examination that is focused on perceived, negative features of the self.

The number of MOR-responses is equal, and also interpretatively, high in all groups. This is a sign of some negative components in self-image. In this context, that finding is not surprising. The extratensives mean value on the Egocentricity index is interpretatively lower than on average. This indicates that they might often perceive themselves less favourably when compared to others and their self-esteem might be lower than usual. They also seem to practice less self-examining behaviours than the other groups. That should be noted in therapy planning.

Personal coping styles (EB) and Rorschach components

Imaginary, negative attitude did not create significant differences between the groups. Introversives had their highest value on that component. Extratensives had the highest mean score on *Isolated, naive self-concept*. That was significantly higher than the ambients value. Introversives had the highest mean on *Social dynamics* on which differences between all groups were statistically significant. Extratensives high negative value on this component is also noteworthy.

Thus, it can be hypothesized that in this sample, extratensives self-conception is more naive and that they might be also socially isolated, as was already hypothesized on the basis of findings from the interpersonal cluster. Their naive self-concept might be related to their minor self-examining behaviours. Introversives seem to be socially more effective than ambients and extratensives, although their high loadings on this component are at least partly created by technical reasons.

Interpersonal problems and Rorschach variables

The mean sum score of IIP is higher in this sample than is reported in the psychiatric sample by Horowitz et al. (1988). That might be related to an increased tendency to report problems.

As expected, subjects who reported plenty of interpersonal problems, had the highest mean values on active and passive movement, human contents, AG, MOR, Vista and Space. Increased interpersonal problems seemed to be related to also decreased Texture-responses. Contrary to what was expected, they had also the highest mean on COP and the lowest mean on Reflections. Also unlike expected, the Egocentricity index, Isolate/R,

Food responses and FD variables had almost similar elevations in all groups. Interpretatively, these results indicate that increasingly reported interpersonal problems are at least weakly related to interests in other people, to positive expectations from interaction, to negative self-concept, to self-examination that is focused on negative features of self and to hostility. Some of these variables represent somehow desirable features, and some of them are related to negative attitudes or affections. The relations between interpersonal problems and slightly increased AG-responses might indicate that aggression, manifested as interpersonal problems, is seen as a natural part of social interaction.

Thus, it could be suggested, that in this sample, people who report more interpersonal problems are generally interested in other people and they probably are capable of functioning adequately in interpersonal situations, but these features are more or less shadowed by their tendency to see things in negative ways. This tendency is evident in interpersonal relations as well. These findings might be related to the fact, that they have sought therapy. However, these proposals must be considered more suggestive than conclusive, because differences between between groups were mostly nonsignificant.

When the IIP is considered as a measure, these findings indicate that a high score in its sum score is related to a more general disposition towards having pessimistic thoughts and/or attitudes. This supports the idea of the sum score as a complaint scale (Horowitz 1988), which refers to subjects vulnerability to report problems.

Conclusions

According to the results, interpersonal relations and self-perception were rather different in this sample than was expected on the basis of earlier psychotherapy studies (Exner & Weiner, 1991 and Exner & Andronikoff-Sanglade, 1992), although some findings were to some extent in the same direction. These features are definitely different from what could have been expected on the basis of Exner's (1993) normative data. Findings indicate several discrepancies in this sample when findings are interpreted according Exner (1993).

When interpersonal relations are considered, it seems that they are marked by several maladaptive features. These include passivity in interpersonal relations, dependency, detachedness, decreased social participation and imaginary conceptions of people. These features can be considered as liabilities, which could be focused on in treatment. On the

other hand, most of these people seem to have an interest in other people and there is also signs of positive expectations from human interaction. Such features are resources, that could be utilized in the course of therapy.

In many subjects self-perception seems to be coloured by some negative features. Negative estimates concerning personal value, negative components in self-image and too critical self-examination tend to be common characteristics in this sample. These conclusions are supported by the linear correlations between these variables, which also explained the greatest amount of the variance in the PCA. Interpretatively, most of these features are related to depressive features in the CS. These findings provide support for the validity of Rorschach, hence many of these subjects have been diagnosed as suffering from depression and/or anxiety disorder, which are often characterized by these elements. Whether or not these features are related to depression in this context, they indicate extensive negative features in the subjects self-perception, and have probably influenced their decision to seek treatment. Increased narcissistic elements among these features are rather surprising. They could be related to serious distortions in self-image and to problems in interpersonal relations. They might also have a cultural origin, as will be speculated on later in this section.

Findings related to control capacity indicate that chronic stress tolerance is at a high level in this sample. The specially high number of subjects with AdJD > 0 is rather unexpected. According to Exner (1993), this feature might be a negative indicator for therapy, as this capacity provides better stress tolerance, which could be used to foster resistance. The subjects of this sample also seem to have lots of resources available, which can be considered as a positive indicator for therapy. On the other hand, these subjects stress tolerance seemed to be often situationally distorted at the time of pretreatment assessment. This indicates that they were in some kind of crisis when pretreatment assessment was carried out.

An ambitent coping style was more common in this sample than was expected. That indicates less effective behaviours both socially and in problem solving situations. Exner (1993) has proposed that in the course of therapy, most ambitent subjects become whether extratensives or introversives. A follow-up study would be needed to determine if that proposal can be generalized to this sample.

In sum, these findings based on the frequencies of Rorschach variables suggest four main types of problems in this sample: ineffective social behaviours, negative components in self-image, situationally distorted stress tolerance and an inconsistent coping style. Any of these factors on their own might lead someone to seek treatment. Therefore, the need for treatment is probably more alarming, if more than one of these factors is present for one person. The relations between the D-score and the *Negative attitude toward self and environment* - component suggests that at least situational stress and negative components in thinking are related to some extent. Future studies will show, how these phenomena change during treatment.

Some of the varieties of the Rorschach variables in this sample might be caused by cultural factors. Unfortunately, normative data for Finnish nonpatients is not available. It was also beyond the capacities of this study to collect a comparable control sample. However, Mattlar (1993) has introduced some Finnish reference data for nonpatient adults. That data suggests that a Finnish nonpatient adult sample is quite similar to Exner's (1993) normative data of nonpatient adults, although some exceptions exist. According to Mattlar (1993), Reflections, Space responses and $H < (H) + Hd + (Hd)$ are more common in a Finnish nonpatient adult sample than would be expected on the basis of Exner's (1993) normative data. These findings are in the same direction as the frequency data for these variables in this sample. Therefore, these findings can be suggested to have a cultural origin to some extent, although contextual factors might also have influenced the frequencies of these variables. A follow-up study might shed some light on the question of the origin of the increased frequencies of these variables in this sample.

In spite of the non-normal distributions of the Rorschach variables, the PCA resulted in a relatively clear and interpretatively meaningful component structure. This should encourage further factor analytic studies using Rorschach. It would be interesting to examine if these components are replicable in other similar samples. The resulting component structure supported the conclusions reached on the basis of the frequencies of the Rorschach variables: negative attitudes seem to typical in this sample. The first component, which explains the greatest amount of the variance, includes all the variables which relate to somehow negatively oriented behaviours. The second component was created by variables which indicate a self-focused and naive personality structure. The

third component was formed by variables which usually are related to more effective social behaviours. It could be hypothesized, that in this context this component represents resources that are present in the sample, but which are suppressed by more maladaptive features. Future studies may show, whether this component structure remains, and if it does, will the relationships between the variance percentages remain the same.

When the ANOVA- comparisons between the subgroups of this study are considered, it must be notified that some of the Rorschach- variables are non-normally distributed in these subgroups. That might have had some effects on the results concerning these variables.

The main result in the comparisons between the D-scores and interpersonal- and self-perception is that AdjD values of two or more seem to be related to remarkably different interpersonal- and self-perception patterns than lower values. They seem to be a very different group of patients than the others. These differences appear in the means of the other Rorschach variables as well as in the means of the component scores. In the light of the findings of Hilsenroth et al. (1995), it can be suggested that those subjects might have an increased risk for premature treatment termination. Future studies would be needed to examine whether that risk is actual in this sample and what other personality characteristics could be related to this feature. AdjD = -1 seems to be related to a passive role in interpersonal relations and to a negative estimate of personal worth. The low number of subjects in that group might have affected the significance of some statistical comparisons. That should be taken into account when results concerning the AdjD are considered.

The findings related to EB suggest that coping styles are related to rather different forms of self-perception in this sample than would be expected on the basis of what Exner (1993) has reported in nonpatients. These differences are probably created by both cultural and contextual factors. Further studies are needed to find out what kind of effects each factor has. Interpersonal perception in this sample seems to be mainly similar to what was expected. That suggests that cultural factors probably do not have so much impact on the frequencies of Rorschach variables than would have been thought on the basis of the findings related to self-perception. That supports the Rorschach's (CS) validity in this study, even though the normative data was collected from different cultures.

The low number of extratensives in this sample was rather unexpected. This might also

be related to cultural features. Notable are the many potential risk factors that have been accumulated for the extratensive subjects in the light of the findings of this study. They seem to exhibit tendencies towards dependency, isolatedness and less effective social behaviours. On the basis of these findings it can be suggested that in this sample an extratensive rather than an ambitious coping style is related to less effective and/or desirable behaviours, the opposite to what is suggested by Exner (1993).

The comparisons between the IIP and Rorschach produced only a few significant results. These were more likely coincidental than actual relations between the measures. This is typical of previous studies in which relationships between Rorschach and self-report measures have been examined (for example Hilsenroth et al, 1994, Ganellen, 1996). Probably these different types of measures represent dimensions of different levels of personality. These dimensions do not appear to match, although both have been proved to be valid and reliable measures in psychotherapy research (f.e. Exner & Weiner, 1991, Horowitz et al., 1988). It has been suggested, that Rorschach measures subjects internal functions which are relatively independent of environmental influence, whereas self-report items often require judgments about past behaviors and environmental interactions (Viglione & Perry, 1991). Thus, these measures do not correlate. The use of the IIP's sum scale probably covered individual variance, that is, different types of problems, which might also have appeared in the frequencies of certain Rorschach variables. However, some interpretatively meaningful trends existed between the Rorschach and the IIP in this study. Those findings should encourage further investigations in this field. In such investigations, it could be detected if the IIP's subscales correspond to some of the Rorschach measures. For example, would high scores on the IIP's Too distant scale correlate with high values of the Rorschach's Isolate/R? Theoretically, such relations could be expected.

Methodologically, the results of this study support Rorschach's utility in psychotherapy research. The Rorschach and the IIP were only mildly related. A follow-up study would provide more information about both measures and would confirm their validity in measuring change in this sample. The statistical methods used in this study were capable of measuring the differences between the subgroups of this sample.

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Appendix 1. Correlation matrix of Rorschach variables

	A	P	SPACE	FD	PUREH	FOOD	AG
A	1,00000						
P	,42307	1,00000					
SPACE	,39199	,51854	1,00000				
FD	,27562	,28237	,21326	1,00000			
PUREH	,54047	,45908	,37991	,31576	1,00000		
FOOD	,24852	,29380	,20776	,22207	,21673	1,00000	
AG	,59757	,37849	,23277	,09049	,41239	,08777	1,00000
COP	,63838	,38323	,24622	,31020	,45804	,17026	,31111
MOR	,45726	,47060	,40438	,11292	,28256	,21609	,38529
ISOLATE	,10064	,14266	,15195	,16607	,06336	,18121	-,00352
HFIKT	,39475	,49804	,50476	,21395	,33405	,07758	,37690
EGOCENTR	,17166	,17461	-,17349	,17962	,17005	-,00781	,08286
REFLECT	,18939	,29889	,14327	,23056	,19670	,16248	,08945
TEXTURE	,13502	,01758	,02198	-,00241	,03014	-,09160	,12034
VISTA	,18126	,27835	,28516	,22235	,28185	,23331	,21646

	COP	MOR	ISOLATE	HFIKT	EGOCENTR	REFLECT	TEXTURE
COP	1,00000						
MOR	,21905	1,00000					
ISOLATE	-,01277	,20696	1,00000				
HFIKT	,22137	,44163	-,17674	1,00000			
EGOCENTR	,26642	-,00274	,05872	-,05183	1,00000		
REFLECT	,11743	,19196	,17829	,11366	,62867	1,00000	
TEXTURE	,00971	,06808	-,02284	,14225	-,09610	-,00651	1,00000
VISTA	,02787	,26803	,10439	,25948	-,12066	,05336	,14169

Determinant of Correlation Matrix = ,0068317

1-tailed Significance of Correlation Matrix:

	A	P	SPACE	FD	PUREH
A	,				
P	,00000	,			
SPACE	,00000	,00000	,		
FD	,00032	,00023	,00439	,	
PUREH	,00000	,00000	,00000	,00004	,
FOOD	,00108	,00013	,00537	,00316	,00386
AG	,00000	,00000	,00208	,13539	,00000
COP	,00000	,00000	,00119	,00006	,00000
MOR	,00000	,00000	,00000	,08445	,00023
ISOLATE	,11022	,04079	,03171	,02113	,22057
HFIKT	,00000	,00000	,00000	,00428	,00001
EGOCENTR	,01784	,01630	,01687	,01392	,01874
REFLECT	,01014	,00010	,04014	,00227	,00792
TEXTURE	,04974	,41547	,39472	,48830	,35714
VISTA	,01322	,00028	,00020	,00312	,00024

	FOOD	AG	COP	MOR	ISOLATE
FOOD	,				
AG	,14275	,			
COP	,01862	,00005	,		
MOR	,00395	,00000	,00354	,	
ISOLATE	,01324	,48295	,43835	,00553	,
HFIKT	,17267	,00000	,00324	,00000	,01525
EGOCENTR	,46219	,15671	,00049	,48672	,23768
REFLECT	,02349	,13818	,07620	,00930	,01452
TEXTURE	,13246	,07121	,45305	,20391	,39072
VISTA	,00203	,00390	,36749	,00046	,10181

	HFIKT	EGOCENTR	REFLECT	TEXTURE	VISTA
HFIKT	,				
EGOCENTR	,26438	,			
REFLECT	,08304	,00000	,		
TEXTURE	,04124	,12104	,46850	,	
VISTA	,00067	,07068	,25834	,04186	,

Appendix 2. Descriptions of Rorschach variables according to Exner (1993)

Interpersonal cluster

Passive and active movement ($p > a + 1$)

All responses which include either animal, human or inanimate movement, are coded either passive or active. The relation between the amount of these two forms of movement responses is interpretatively significant. If there is more than one more passive movement response than active, the subject is probably mostly in a passive role in interpersonal relations. They usually avoid responsibility in decision making activities and they are less willing to search for new solutions or to adapt new behavioral sets. If food responses also exist, the person is probably passively dependent.

Food responses (Fd)

If the protocol contains one or more responses in which the content includes food, then more dependent behaviours can be expected than usual. These people usually trust other peoples guidance and support and they often seem to have naive expectations about interpersonal relations.

Texture responses (T)

Most people give one T response. When $T=1$, the person probably experiences needs of closeness similar to those of most people. If T is more than one, those needs have probably increased and the subject might feel lonely or unusually dependent from others. Subjects who do not give any T responses seem to be more guarded and/or distant in their interpersonal relations, but it does not mean that they do not have any needs for closeness. They just seem to be more careful when they create or sustain a close emotional relationships to others.

Human Contents

The total number of human contents relates to having interest in other people. Usually

there are five to seven responses in a protocol which include some kind of human content. If there is less than five human contents, the subject is probably less interested in other people than is usual. Correspondingly, if there is more than seven human contents, the subject is probably more interested in other people than is usual. Human content responses are categorized into pure human contents which are coded H and human detail contents which are Hd. There are also similar categories for fictive human contents which are coded (H) and (Hd). In the structural summary these different human contents are fitted into an ratio $H:Hd+(H)+(Hd)$ to examine the relationship between pure human contents and other kinds of human contents. If the value on the right side of this ratio is greater than the left side value, it can be assumed that the subjects ideas about self and other people are based on imaginary rather than on real experiences. In this study we will use Pure H and $Hd+(H)+(Hd)$ as separate variables.

Aggressive movement (AG) and Co-operative movement (COP)

Research has supported the notion that elevated AG responses signify an increased probability for aggressive behaviour, either verbal or nonverbal. They also indicate more negative and/or hostile attitudes towards other people. However, aggression can be displayed either in socially accepted ways or not and there are many personal features which have an impact on such displays, such as reality testing, affect control, stress tolerance etc. That is one reason why information from several other sources must be considered before any conclusions can be made. COP-answers relate to expectations of social interaction. Their presence or absence must always be considered in relation to other variables as well, especially to AG.

If the value of COP is zero and AG is zero or one, the subject probably does not perceive or expect on a everyday basis positive interaction between humans. If COP is zero and AG is two it can be presumed that the subject perceives aggression as a natural part of interpersonal relations. Aggressive behavior is more likely, but it's form may vary depending on other personality factors. If COP is one or two and AG is zero or one it can be concluded that the subject mainly perceives a positive interaction between people and wants to be involved to it. If COP is two or three and AG is two, the subject seems to be open and interested in positive interaction, but this interaction is marked by more aggressive forms.

When COP is three or more and AG is zero or one or COP is more than three and AG is two or less, it can be presumed that the subject is considered as pleasant and outgoing. These people usually perceive human interaction as an important part of their daily routine and they usually are considered as sociable by others. It is very unusual that COP is three or more and AG is more than two. That would be a sign of conflict or confusion in interpersonal activities.

The isolation index (Isolate/R)

This index relates to social isolation. It is calculated by dividing the sum of content categories Botany, 2 x Clouds, Geography, Landscape and Nature by the sum of responses. The value of this index provides information about subjects opinions and reactions towards the social environment. A value of between 25 -32 % usually indicates a decreased participation in social interaction. It often represents a minor interests in or insecurity in social interaction. If the value of Isolate/R is 33 % or more, it is very likely that the subject is socially isolated. This finding usually indicates difficulties in creating and/or sustaining smooth or meaningful interpersonal relations.

Self-perception cluster

Egocentricity index (3r+(2)/R)

This index relates to self-esteem. It is an estimate of self-concerning behavior and possibly of self-esteem. If it's value is more than average, .45 in adults, the subject seems to be more oriented to him- or herself than most people. If the value is less than average, .32 in adults, it can be presumed that the subjects estimate of personal worth is negative and he or she probably considers him- or herself less favorable light than others. This feature might cause depression.

Vista (V) and Form Dimension (FD)

Both of these variables relate to self-examining behaviors. FD responses are generally a positive sign, unless there are not too many of them. One or two FD responses is conside-

red as ideal. V relates to nervous affective experience produced by self-examination which is focused on perceived negative features of the self. V is not expected to appear in a record. If FD is more than two or V is more than one, it can be concluded that some kind of unusual self-examination exists.

Morbid content (MOR)

Responses with MOR content always include some projected material. These kind of responses indicate a pessimistic attitude toward self and probably toward the environment as well. Probably the subjects self-concept is also marked by more negative and possibly distorted features than usual. One MOR response is interpretatively meaningless, but if there is two of them, it is more likely that self-image has some negative components. If MOR is three or more, it is quite sure that the self-concept is marked by negative characters

Reflection responses (Fr+rF)

Reflection answers indicate dominant, narcissistic elements in the subjects self-concept. This character includes a tendency to overemphasize personal value. Personal pride must be continuously reinforced. This tendency often influences decisions and behavior. This feature is typical for children but if it exists in adult, it might produce difficulties in interpersonal relations.

Affect cluster

White Space responses (S)

One or two White Space responses are not interpretatively significant. Three or more indicate a negative, hostile attitude towards the environment, especially if at least one of them exists after Card III. It does not necessarily mean that anger is manifested in behavior, but it might have some impact on decision making and coping-activities.

Control capacity and coping

D-scores

D-scores refer to a subjects control capacity and stress tolerance. The D-score provides information about current control capacity and the Adjusted D-score (AdjD) is related to a more typical or usual capacity to form and control behavior. Usually these variables are considered collectively, but in this study only AdjD was focused on.

Although both variables are important, the value of AdjD is considered more critical. It is the best single Rorschach index for the capacity to sustain control in demanding situations or in stress situations. The D-score is related to their current capacity to do so. Most adults have an AdjD value of 0. It indicates that their stress tolerance is adequate in everyday life and is altered significantly only in strong, long lasting and/or unexpected stress situations.

If the value is more than one, these capacities are better than usual because resources are better available. This is related to more sturdy control. This might be hopeful, but in patients it might indicate problems because resources might be used defensively.

If D-scores are less than zero, there are less resources available than is required by demands. People like this are overloaded, because they experience more demands in reaction formation than they are ready and able to carry out. That might create impulsiveness in behaviour. This feature might be chronic or situational and it can be estimated by checking which D-score is less than is usually the case.

Erlebnistypus (EB)

EB is one of Rorschach's original variables and it is considered as one of the most important features of the method. EB is the ratio between human movement (M) and the weighted sum of chromatic color answers (WsumC).

If this ratio is weighted in M-responses, the subject is considered as introversive. People like that are oriented towards inner life to achieve satisfaction. In problem solving and decision making situations they usually delay decisions until all alternatives have been considered. They usually prefer to exclude emotions from these activities.

The opposite to introversiveness is extratensiveness. If this style is present, the subject

probably uses social life as a source of satisfaction. They are more prone to show their emotions toward the environment. They usually involve emotions in problem solving and decision making activities and they usually use a trial and error-approach to solve these situations.

If none of these styles exists, the subject is considered as ambitent. This kind of subject is prone to vary introversive and extratensive styles in problem solving situations. This approach is less efficient than the other two styles and it is always considered as a negative finding.

Experience Actual (EA)

EA is counted by counting both sides of the EB together. This variable relates to available resources and how well they are organized. A high value of EA does not necessarily relate to more effective behaviours. Therefore, it's value must be considered in relation to many other variables.