Interpersonal Self-Perception and Memories on Parental Rearing in Alcohol Dependent Patients and Outpatient Controls

Cor A.J. De Jong*,1,2 and Pauline Jacobs2

1Novadic-Kentron, Network for Addiction Treatment Services, 2Nijmegen Institute for Scientist-Practitioners in Addiction, Radboud University Nijmegen, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands

Abstract: The aim of the present study is to explore the relation between interpersonal self-perceptions and memories on parental rearing taking into account the influence of alcohol dependence. Based on interpersonal and object relation theories, the existence and the directions of this relation are hypothesized. A comparative, cross-sectional study was conducted including 126 alcohol dependent inpatients (87 males, 39 females) and 119 healthy control subjects without alcohol-related problems or psychopathology (64 males, 49 females). The interpersonal self-perception was measured with the ICL-R and memories on parental rearing with the EMBU. Results show that memories on parental rearing significantly contribute to interpersonal self-perceptions especially in healthy male subjects and alcohol dependent females. Memories of rearing styles by father are most influential in female and those of mother in male. Limitations of the study are discussed, as well as some clinical implications.

Keywords: Interpersonal, self-perception, parental rearing, alcohol dependence.

INTRODUCTION

Each individual builds representational or working models of the world and himself in this world according to the attachment theory [1]. In these working models, a key feature is a person’s notion of whom his attachment figures are and how they are expected to respond. Similarly, working models of the self are build. The working models of the world and the self are complementary.

Traditionally, these working models were called the ‘introjection of an object’ and the ‘image of the self’ [1]. Children develop representations of their parents, called parental representations or parental introjects [2]. These parental representations are a form of ‘internal working models’ [1] Parental representations serve two functions in normal development. They act as blueprints for subsequent interpersonal relationships and they allow the individual to carry on an inner dialogue with significant persons [2].

Memories on parental rearing are not necessarily reflections of the actual behavior of the parents [3, 4]. Both child and parents can have different perceptions of this parenting behavior. In case of dysfunctional parental representations, there is a risk of developing psychopathology. These representations can lead to unrealistic expectations about interpersonal relationships. In turn, these unrealistic expectations can lead to impaired interpersonal relationships. It is also possible that the parental representations do not allow the individual to modulate tension and anxiety effectively [5].

This means that an association can be hypothesized between adult interpersonal behavior and the internalizations of important attachment figures, like the parents [6-10]. Psychopathology can be defined in part as maladjusted interpersonal behavior. There is also an association between psychopathology and parental representations. Both observations support the assumption that there is an association between interpersonal behavior and parental representations [2, 11, 12]. Correlations were found between retrospective reports about the relation of adolescents with their parents, recalled from age 5 to 10, and measures of personality based on the Big Five-model [13]. It was concluded that parental representations relate to adult personality characteristics. Furthermore adolescents’ perception of their parents as guilt-inducing, disregarding their point of view and just being responsive when their standards have met, is related to self-perceptions of themselves as being in pursuit of nearly unattainable goals [14]. It was also found that memories of a highly punitive mother were significantly correlated to a negative view of the self [15].

The internal working models of the world in which important attachment figures like parents play a key role are complementary to those of the self in the world [1]. This means that if memories on parental rearing are compared with interpersonal self-perceptions, it can be expected that these are associated in a complementary way.

The best way for measuring the construct ‘parental representations’ is to ask subjects to write down open-ended descriptions about themselves and about their mother and father [5]. Second best are structured retrospective questionnaires, for instance the Parental Bonding Instrument (PBI) [16] and the Egna Minnen Beträffande Uppfostran or on my memories of upbringing (EMBU) [17]. The EMBU measures memories on parental rearing in four different
styles; overprotection, emotional warmth, rejection, and favoring subject, separately measured for father and mother.

Interpersonal self-perceptions can be regarded in part as self-perceptions of real interpersonal behaviour. The interactions between two persons can be predicted from the theoretical framework of the Interpersonal Circumplex (IPC). The IPC consists of two underlying dimensions, called the power- and affiliation-axis. The power-axis runs from submission to dominance and the affiliation-axis from hate to love [18]. On the power-axis, complementarity originates on the basis of reciprocity. Dominance evokes submission and submission evokes dominance. On the affiliation-axis complementarity is based on correspondence. Love evokes love, and hate evokes hate [19].

Based on these findings we hypothesize that the interactions between self and others in the representational world of a person follow the IPC theory and that memories of parental rearing styles can be placed within the circumplex according to this theory (Fig. 1).

![Fig. (1). The Interpersonal Circumplex, with the affiliation-axis (runs from hate to love) and the power-axis (runs from dominant to submissive). Three of the four EMBU-scales can be positioned in this IPC; 1 = rejection, 2 = emotional warmth and 3 = overprotection, 4=favoring.](image)

We expect that several factors can influence the association between memories on parental rearing and interpersonal self-perception. Differences were found in self-report measures on the ICL between males and females [20] and in the interpersonal self-perception between alcohol dependent males and females [21]. Males describe themselves as more competitive-independent, while females describe themselves as more responsible-helping. This also points to differences in the interpersonal self-perception between non-alcohol dependent males and females.

Parental gender will also influence the relation between the interpersonal self-perception and memories on parental rearing. According to several studies, the maternal representation seems to play a more important role than the paternal [13, 15, 22].

The relation between memories on parental rearing and the interpersonal self-perception as described is thus far not specified for healthy or pathological development. There are indications that interpersonal self-perceptions as well as memories on parental rearing of alcohol dependent subjects differ significantly from those of non-alcohol dependents. Alcohol dependent males as well as alcohol dependent females perceive themselves as more rebellious/distrustful, reserved/silent and dependent/docile than non-alcohol dependents [21]. This means that the perceived interpersonal behavior of alcohol dependent patients can be localized in the submissive part of the IPC.

Some research has been conducted on memories of parental rearing in alcohol dependent patients. Higher scores for alcohol dependent patients were found on the PBI-scale ‘overprotection by mother’ than in non-alcohol dependents [23]. These outcomes indicate that alcohol dependent patients have a different perception of the rearing style of their parents than non-alcohol dependents do. There are little differences between the memories of alcohol dependent patients, both males and females, and the rearing styles of their parents [24]. However, differences were found between the perceptions of paternal and maternal rearing styles. Mothers are seen as more ‘protective’ and ‘emotionally warm’ than fathers. For both parents, alcohol dependent patients showed higher scores on the scales ‘overprotection’ and ‘rejection’ and lower scores on the scale ‘emotional warmth’ than non-alcohol dependent subjects [25]. In our study we want to compare the relation between memories of parental rearing and self-perception of interpersonal behavior in alcohol dependent patients and healthy control subjects. Knowledge about the association between memories of parental rearing and self-perception of interpersonal behavior in patients can be helpful to understand and to prevent pitfalls in the development of the therapeutic relationship.

We expect that memories on parental rearing predict in part interpersonal self-perceptions. Based on the principle of complementarily, parental emotional warmth is expected to predict an interpersonal self-perception positioned at the love-pole of the IPC and parental rejection predicts an interpersonal self-perception positioned at the hate-pole of the IPC. Parental overprotection is expected to predict an interpersonal self-perception positioned at the submissive part of the IPC and parental favoring is expected to predict an interpersonal self-perception positioned at the friendly-submissive quadrant of the IPC. Group differences in the association between interpersonal self-perceptions and memories on parental rearing are expected between alcohol dependent males, non-alcohol dependent males, alcohol dependent females and non-alcohol dependent females.

**METHOD**

**Participants**

Table 1 shows some demographic characteristics of the participants. The first group (n=126) consists of all patients between 18 and 65 years admitted to a drug free inpatient department of an addiction clinic in the Netherlands. They fulfil the criteria of the DSM-III-R diagnosis alcohol dependence. Patients with mental retardation, memory disorders, abuse or dependence of other psychoactive substances or not able to read and write in the Dutch language were excluded. Based on these criteria, 145 patients could be included, 126 filled out all the questionnaires. The mean age of this group is 37.7 years (sd
The Dutch version of the CAGE questionnaire was used as a short screening for alcohol related problems in the sample of non-alcohol dependent subjects. The questionnaire consists of four questions: Have you ever felt you should cut down on drinking? Have people annoyed you by criticizing your drinking? Have you ever felt bad or guilty about your drinking? Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover? Questions have to be answered with ‘yes’ or ‘no’. Two or more positive answers on these questions indicate a high likelihood for problem drinking or probable alcoholism [27]. This criterion is based on the use of this test in clinical settings. In the general population there are a lot of false positives when this criterion is used. False positives are very likely to have a score of 2 on this test. Questions 1, 2 and 3 often elicit positive responses, even in non-heavy drinkers, especially in those who experimented with drinking during adolescence. Moreover, light drinkers have more stringent standards on socially acceptable drinking behaviour [28]. The CAGE was used to rule out alcohol problems in the community based sample of healthy control subjects.

**Symptom Checklist (SCL-90)**

The SCL-90 is a 90-item self-report questionnaire aimed at measuring the actual level of psychopathology. The Dutch version has good reliability and validity [29]. Questions have to be answered on a 5-point Likert scale. The overall score is a measure of this actual level of psychopathology. This score can be divided into 9 subscales, called ‘anxiety’ (10 items), ‘agoraphobia’ (7 items), ‘depression’ (16 items), ‘somatization’ (12 items), ‘obsessive-compulsive’ (9 items), ‘interpersonal sensitivity’ (18 items), ‘hostility’ (6 items), ‘sleeping-problems’ (3 items) and ‘psychoticism’ (9 items). The SCL-90 was used to rule out general psychopathology in the community based sample.

**EMBU**

The EMBU (Swedish acronym for ‘memories on upbringing’) is a 65-item test which has to be answered on a 4-point Likert scale, separately for both parents. Factor analysis showed that a four factor solution for the rating of both the father and the mother represented the best factor solution [30]. Based on these factors four subscales are used in the interpretation of the EMBU, separately for father and mother. The four scales are rejection (characterized by physical punishment, rejection of the child as an individual, hostility, derogation of the child, lack of regard for his/her point of view, and ridiculizing/criticizing the child’s inadequacies and problems before others), emotional warmth (characterized by giving warm and loving attention, helping the child with things he/she finds important without being intrusive), aiding the child through problems in a way best for him/her, a high regard for the child’s point of view, the ability of the child to confide in the parents and to ask for

### Table 1. Marital Status and Work Status of Alcohol Dependent and Non-Alcohol Dependent Males and Females, Expressed in Frequency, and Level of Significance of Group Differences

<table>
<thead>
<tr>
<th></th>
<th>Alc'M</th>
<th>Alc'M*</th>
<th>Alc'F</th>
<th>Alc'F*</th>
<th>A vs B</th>
<th>C vs D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>32</td>
<td>25</td>
<td>12</td>
<td>15</td>
<td></td>
<td>&lt;.001**</td>
</tr>
<tr>
<td>Unmarried</td>
<td>31</td>
<td>36</td>
<td>13</td>
<td>33</td>
<td></td>
<td>.001**</td>
</tr>
<tr>
<td>Divorced</td>
<td>24</td>
<td>44</td>
<td>9</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working</td>
<td>35</td>
<td>44</td>
<td>9</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>4</td>
<td>18</td>
<td>1</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unable to work</td>
<td>32</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>&lt;.001**</td>
<td>&lt;.001**</td>
</tr>
<tr>
<td>Unemployed</td>
<td>16</td>
<td>1</td>
<td>10</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Alc'M = alcohol dependent males; Alc'M* = non-alcohol dependent males; Alc'F = alcohol dependent females; Alc'F* = non-alcohol dependent females.

Chi-Square Test is performed to obtain levels of significance. * = p < 0.05 and ** p < 0.01.
help, and intellectual stimulation), overprotection (characterized by parental behavior indicative of child’s protection, albeit in a gushing manner, from negative experiences, a comparatively high degree of intrusiveness, a comparatively high expectancy to know all about what the subject is doing, high standards of accomplishment in particular areas, imposing strict regulations and demanding unquestioned obedience to them), favoring subject (characterized by favoring the child above other siblings).

**ICL-R**

The revised Dutch version of the Interpersonal Checklist (ICL); [31] is based on the interpersonal behavioral model of [18] and contains two new, theoretically based interpersonal behavior styles, nFnG (reserved/silent) and nNnO (social/extravert) that fill the gaps repeatedly found in the lower left and upper right quadrants [32, 33]. The Interpersonal Checklist-Revised, ICL-R, consists of 160 dichotomous items related to interpersonal style that clients can agree or disagree with, in order to describe themselves. The checklist contains ten scales, each linked to 16 items. The scales are: managerial/autocratic (PA); narcissistic/competitive (BC); sadistic/aggressive (DE); rebellious/distrustful (FG); reserved/silent (nFnG); masochistic/self-effacing (HI); dependent/docile (JK); co-operative/conventional (LM); hyper-normal/responsible (NO); sociable/extravert (nNnO). The scales can be placed in a circumplex model as proposed by Leary [18] around the orthogonal dimensions of control vs submission and nurturance vs hostility [34]. The psychometric properties of the ICL-R in a community based sample (n=260) and a substance-dependent patient sample (n=787) proved to be fair to good. Internal consistency for the total checklist in these groups was .85 and .83, and test-retest reliability ranged from .79 to .92 and .61 to .81 respectively [35].

**Procedure**

**Alcohol Dependent Patients**

Patients participate in this study on the basis of informed consent. The Dutch Ethical Assessment Committee for Experimental Investigations on People approved the study. Baseline-measures took place at two moments. Patients were interviewed during an outpatient intake to assess the severity of the addiction and the problems caused by or related to the addiction during the outpatient intake. Two weeks after admission in the drug free in-patient department patients were assessed with a comprehensive set of interviews, questionnaires and observations that also contains the paper-and pencil-versions of EMBU and ICL-R. If a patient showed symptoms of withdrawal the assessment was done after three weeks. The assessment was done before the start of the treatment program focusing on relapse prevention and rehabilitation.

**Healthy Subjects from a Community Based Sample**

Participants received booklets which they had to fill out. The booklets contained a letter which explained in short the aim of this survey. In this way participation of the subjects is based on informed consent. The booklets contained a short list for demographic characteristics and drinking attitude and behaviour, consisting of the CAGE questionnaire and detailed questions about the use of alcohol and actual or former treatment for the use of alcohol or other psychoactive substances. The booklets include the SCL-90, the ICL-R and the EMBU. Upon finishing the questionnaires they had to return the booklets by mail before a given date.

**Data Analysis**

First, a factor analysis with varimax rotation will be performed on the ICL-R to reduce the ten subscales in a more convenient number of factors. These factors will be used as composite scores for further analysis. After that, Pearson correlations between these composite scores and the EMBU-scales will be computed. In an earlier predictive studied it was found that gender was an effect-modifier [24] so we decided to perform the analysis on associations between interpersonal perceptions and memories on parental rearing in the four groups separately. This means that subjects are divided into four groups, healthy females, alcohol dependent females, healthy males and alcohol dependent males. To find out if memories on parental rearing predict the interpersonal self-perception, a stepwise linear regression analysis is applied (Pin = .05; Pout = 0.10). The composite scores derived from the ICL-R as dependent variables and the eight EMBU-scales as independent variables (paternal and maternal overprotection, rejection, emotional warmth, and favoring).

**RESULTS**

Table 2 presents the results of the factor analysis of the scores on the ten subscales of the ICL-R. This analysis reveals three factors. Dominance (PA + BC + DE + nNnO), Complaisance (LM + NO + JK), and Dependence (FG + nFnG + HI), with Cronbach’s alpha’s of .76, 70 and .68 respectively. Together they explain 71.5 % of variance in ICL-R scores. The factor solution is comparable with an earlier Dutch study [36].

<table>
<thead>
<tr>
<th>ICL-R Subscales</th>
<th>ICL-R Composite Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dominance</td>
</tr>
<tr>
<td>PA</td>
<td>.818</td>
</tr>
<tr>
<td>BC</td>
<td>.803</td>
</tr>
<tr>
<td>DE</td>
<td>.756</td>
</tr>
<tr>
<td>nNnO</td>
<td>.604</td>
</tr>
<tr>
<td>LM</td>
<td>.053</td>
</tr>
<tr>
<td>NO</td>
<td>-171</td>
</tr>
<tr>
<td>JK</td>
<td>-137</td>
</tr>
<tr>
<td>FG</td>
<td>.231</td>
</tr>
<tr>
<td>nFnG</td>
<td>-.252</td>
</tr>
<tr>
<td>HI</td>
<td>-.505</td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>3.25</td>
</tr>
<tr>
<td>Variance (%)</td>
<td>26.7</td>
</tr>
</tbody>
</table>

The Open Addiction Journal, 2010, Volume 3 De Jong and Jacobs
The Pearson correlations between these factors and the EMBU-scales are presented in Table 3, separately for alcohol dependent males and females and for non-alcohol dependent males and females.

In male alcohol dependent patients, there is one significant correlation between complaisance and rejection by mother (-). In female alcohol dependent patients there are significant correlations between dominance and emotional warmth of the father (+), and between dependence and emotional warmth of both parents (-). In healthy males there are significant correlations between complaisance and rejection (-), emotional warmth (+) and favoring (+) by mother, and between dependence and emotional warmth of both parents (-) and overprotection (+) and favoring (+) by mother. In the healthy females there is one significant correlation between dominance and emotional warmth of the father.

In sum the results show that in healthy males memories on the rearing styles of the mother are associated with the self-perception of interpersonal behaviour especially concerning dependence and complaisance.

The results of the regression analysis are displayed in Table 4.

In all groups there are associations between self-perceptions of interpersonal behavior and memories on parental rearing styles. These associations are the strongest in healthy males and the weakest in healthy females and alcohol dependent males.

In healthy female subjects it is found that the stronger the father is remembered as emotional warm, the higher the score is on dominance. This effect is also seen in alcohol dependent females and in them there is also a negative association between father as emotional warm and interpersonal dependence. There proved to be no associations between complaisance and memories on parental rearing by mother in females. In non-alcohol dependent male subject’s complaisance is associated in a positive way with maternal emotional warmth and favoring and in a negative way with maternal overprotection. Interpersonal dependence is associated in a positive way with favoring by mother and with maternal emotional warmth and in a negative way with maternal overprotection.

In alcohol dependent males it was found that the stronger mother is remembered as emotional warmth the lower the score on dominance. There is a positive association between emotional warmth and complaisance. Finally it is found that if father is remembered by alcohol dependent males as rejecting this is associated with higher scores on dependence.

**DISCUSSION**

We have found that memories of parental rearing styles explain a significant part of the variance in interpersonal self-perceptions especially in healthy male subjects. There are differences between male and female and between alcohol dependent patients and healthy control subjects. In the healthy control group parental rearing styles are more important for the interpersonal self-perceptions in male than in female. Maternal styles are more important in male and paternal styles than in female. In the alcohol dependent group the associations are also present but they are weaker especially in males. In general it appears that memories of maternal rearing styles are the most important. This confirms earlier findings [13, 15, 22].
The contributions of specific memories of parental rearing to the interpersonal self-perception found in our study are in accordance with the interpersonality theory of complementarity as described in the introduction. A parental representation positioned around the love-pole of the IPC (e.g. maternal emotional warmth) predicts that the interpersonal self-perception is also positioned around this same pole. A parental representation positioned around the hate-pole of the IPC (e.g. absence of paternal emotional warmth) predicts that the interpersonal self-perception is positioned around this pole. This matches principles of complementarity and similarity [19]. Concerning affiliation these principles predict the same, namely that love evokes love and hate evokes hate. It seems that this rule is valid not only for real interpersonal communications but also for communications in the representational world of the subjects studied here.

A distinction between complementarity and similarity can be made concerning the power-axis. When complementarity occurs dominance generally evokes submission and submission evokes dominance. In case of similarity dominance evokes dominance and submission evokes submission. We have found that maternal overprotection (dominant behavior) predicts a perception of the self as being dependent (submissive behavior) in females. Here, complementarity dominates similarity which is in accordance with earlier findings [37].

These findings suggest that the way memories of parental rearing predict the interpersonal self-perceptions. This is in accordance with the proposed theories about the relation between parental rearing and actual interpersonal behavior.

Furthermore there are significant differences between the two groups studied here concerning marital status and work status. However, we do not expect them to influence memories of parental rearing or the interpersonal self-perception. Furthermore the patients are in a clinical setting at the time they filled in the questionnaires while the non-patient controls are at their house in the environment of their families. Finally we do not know if intellectual or cognitive disabilities were present in the patient group and therefore we cannot answer the question if these disabilities could explain the results.

Even though our study has limitations, the results are important from a theoretical and clinical point of view. We conclude that in alcohol dependent patients memories of parental rearing styles play a less important role in their interpersonal self-perceptions than in a more healthy community based group of subjects. The working models of patients are only in part under the influence of their perceived parents. These models can lead to unrealistic expectations about interpersonal relationships. These unrealistic expectations can lead to impaired, actual interpersonal relationships including those with therapists challenging these relationships in a negative way. Therefore the influence of memories of parental rearing on interpersonal self-perception should be analyzed in the treatment of an individual alcohol dependent patient. In case of dysfunctional patterns treatment should also focus on restructuring these memories in relation to actual interpersonal behavior.

REFERENCES


---

Table 4. Linear Regression Modelling of Interpersonal Self-Perceptions Using Memories of Parental Rearing Styles Alcohol Dependent Patient and Non-Alcohol Dependent Males and Females

<table>
<thead>
<tr>
<th>Group</th>
<th>Dominance</th>
<th>Complaisance</th>
<th>Dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parental Style</td>
<td>ME</td>
<td>FE</td>
</tr>
<tr>
<td></td>
<td>beta</td>
<td>p</td>
<td>beta</td>
</tr>
<tr>
<td>ALC+ M</td>
<td>ME</td>
<td>-.28</td>
<td>.028</td>
</tr>
<tr>
<td>% explained variance</td>
<td>7.6</td>
<td>8.8</td>
<td>7.9</td>
</tr>
<tr>
<td>ALC+ F</td>
<td>FE</td>
<td>.39</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>% explained variance</td>
<td>15.1</td>
<td>-</td>
<td>16.1</td>
</tr>
<tr>
<td>ALC- M</td>
<td>ME</td>
<td>.30</td>
<td>.017</td>
</tr>
<tr>
<td>ALC- F</td>
<td>FE</td>
<td>.29</td>
<td>.042</td>
</tr>
<tr>
<td>% explained variance</td>
<td>8.5</td>
<td>26.6</td>
<td>16.8</td>
</tr>
</tbody>
</table>

*Parental. Style is memories of parenting style of M = Mother or F = Father. E = Emotional Warmth; O = Overprotection; R = Rejection; F = Favouring.

[^1]: ALC+M = alcohol dependent males; ALC+ F = alcohol dependent females; ALC- M = non-alcohol dependent males; ALC- F = non-alcohol dependent females.


