Investigating structural change in the process and outcome of psychoanalytic treatment - The Heidelberg-Berlin Study

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1. History, Focus and Present State of the Research Project

In 1993 the Confederation of German Psychoanalysts (Deutsche Gesellschaft für Psychoanalyse, Psychotherapie, Psychosomatik und Tiefenpsychologie - DGPT) decided to support research on psychoanalytic long-term therapy. The DGPT's plan was to study high intensity long-term psychoanalyses in comparison with one hour per week psychodynamic psychotherapies. In calling for research proposals the DGPT's essential objective was to subject the effectiveness and efficiency of long-term therapies to empirical investigation and thus marshal arguments that could be deployed in the ongoing health-policy debate in Germany. However, its initiative also coincided with an existing interest on the part of psychoanalytic organizations to evaluate their own work and gain a deeper understanding of it with the aid of systematic research. Aside from the question of effectiveness, the call for projects was thus also guided by an internal interest in the investigation of the processes and specific change mechanisms activated by psychoanalytic treatments.

In taking up the DGPT's invitation, our considerations soon centred on the fundamental question of whether, in view of the present state of research and methodology, their demand for a research project on the psychoanalyses could in fact be satisfied. The most important problem related to the fact that, the research instruments used so far, against the background of the so-called dose-effect models (Howard, Kopta, Krause & Orlinski 1986), had identified significant changes in the early phases of psychotherapeutic treatment but only minor effects in the further course of treatment. On the basis of studies indebted to this model, Grawe, Donati und Bernauer (1994) queried the usefulness of long-term therapies and concluded that positive effects can only be expected from treatments of up to about 50 hours.

Our position on this is a very different one. We are convinced that the specific effects of psychoanalyses, which, as clinical experience shows, only materialize after long and intensive treatment, cannot be detected with the aid of conventional research instruments. These measuring instruments operate close to the surface, capturing above all symptomatic or behavioural characteristics (Grande & Jakobsen 1998) whereas from a psychoanalytic point of view, the essential changes take place at the level of personality structure, i.e. in the course of the breakdown of pathological structures that have taken shape in the course of an individual’s development and the reorganization and/or reintegration of the pathogenic intrapsychic conflicts and vulnerabilities embodied in those structures. Such processes of restructuring, which in all probability can only be achieved by means of long-term analytical processes, can obviously not be registered by conventional change-assessment techniques (cf. Strupp, Schacht & Henry 1988). These considerations led us

to conclude that a project dealing with the effectiveness of long-term psychoanalytic therapies could only be successful if a method were available to assess central personality structure from a psychoanalytic point of view.

To this end a research group was constituted in 1992 involving 40 scientists and clinicians with a psychoanalytic background and from 12 different universities; within the framework of the project on an Operationalized Psychodynamic Diagnosis system (OPD), the group developed instruments designed to remedy this situation (Arbeitsgruppe OPD 1998). Four years work led to a classification system for research, teaching and practice based on psychoanalytic constructs and thus transcending the purely descriptive approach underlying the existing systems (ICD, DSM). The OPD instruments thus assume a central position in our research approach, which, towards the end of 1993, was presented to the DGPT in the form of a project proposal (Rudolf & Grande 1997; Grande, Rudolf & Oberbracht 1997). The plan was evaluated by several independent experts and classified as suitable for responding to the issues posed by the DGPT's call for projects.

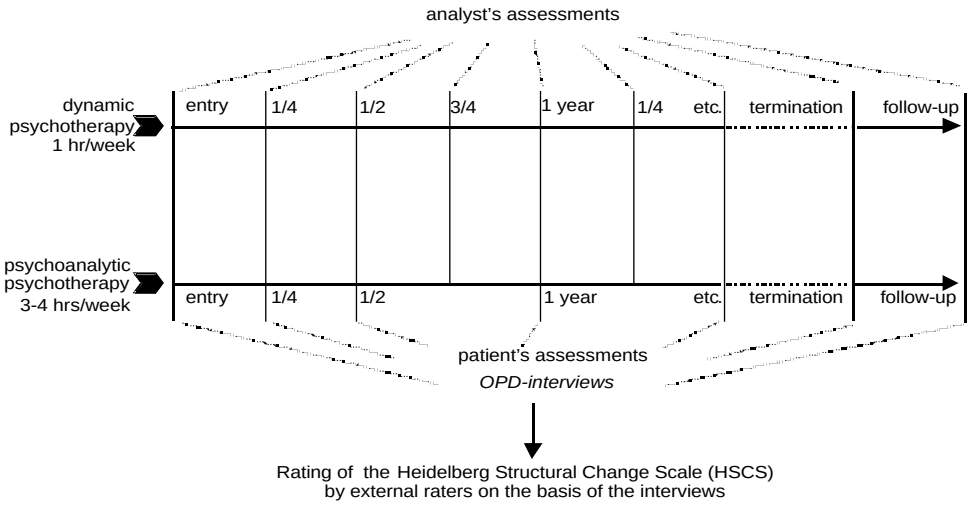
In 1997, after a preliminary study, we were able to begin work on the project and start collecting data in Heidelberg (research group: Rudolf, Grande, Oberbracht, Jakobsen) and Berlin (Keller, Dilg, Stehle). By mid-2000 a total of 61 cases from Heidelberg and Berlin had been incorporated into the study; the average length of therapy was approx. 2 years. As recruitment is still in progress and the therapies are long-term in design, the study itself is not yet complete. Accordingly, the present article presents a discussion of the study design and the methods we have developed to measure structural changes. We will exemplify this procedure with reference to observations made in the actual course of the psychoanalytic treatment of one particular patient. Further, we report on the outcome of preliminary investigations (now complete) on the reliability and validity of this method.

Central to our investigation is the question of the specific quality of therapeutic changes that take place in intensive psychoanalytic treatment on the one hand, and in low-frequency psychodynamic therapies on the other. Our hypothesis is that there are qualitatively distinct forms of change that can be designated as "coping" in the one instance and "structural change" in the other. We assume that "structural changes" are more likely to occur in psychoanalyses, whereas in low-frequency therapies the probability is higher of encountering changes of a "coping" kind. We also hope toshow how these two types of change have been conceptualized and operationalized in the study. In the final section of the article we return to this distinction and refine our hypothesis with reference to the investigatory methods we have employed.

2. Study design, sample and research instruments

Figure. 1 shows the study design. It involves 30 patients receiving psychoanalytic psychotherapy of at least 3 hours a week and 30 psychotherapy patients in a one-hour sedentary setting. To protect this number of cases against attrition, 36 patients were admitted to each group. At the outset of therapy the patients are subjected to detailed diagnostic examination. In the further course of the study assessments are made at 3- or 6-monthly intervals through to treatment termination. Recent research by Sandell, Blomberg & Lazar (1999) strongly suggests that frequency and setting differences have their clearest effects in the years following the termination of therapy. Accordingly a further central line of inquiry examines the changes taking place in that period; hence the research design also extends to follow-up studies. Follow-up studies are to take place one and three years after the termination of therapy.

Fig. 1: Study Design



The patients admitted to the study display severe neurotic, psychosomatic and personality disorders. In our study patients are classified as severely disordered if they present a moderate or low integration level on the "Structure" axis of the OPD (see Section 3.1 below) and in addition display clear-cut symptoms measured by an Impairment Severity Score (Schepank 1995). The patients are assessed on the basis of these criteria before admission. With an

eye to ensuring continuous comparability of the differential effects in the two groups, each of the participating analysts brings to the project one psychoanalytic case and one psychotherapy case. In this way possible confounding factors associated with the person of the analyst are compensated for in both groups.

Both treatment groups are matched for sex, age, educational level and disorder severity (usingthe above-mentioned inclusion criteria) so that some level of patient comparability is also assured. The alternative – of employingrandomized group allocation - is hardly feasible under normal outpatient conditions and carries its own substantial scientific risks regarding the validity of the investigation (by distorting the object of study). Hence a decision was made in favour of a naturalistic design plus subsequent group matching. In many other details of the study care is also taken to ensure protection of the therapeutic situation and as little interference from our research as possible. For example, the data collection procedure is organized in such a way that analyst and patient negotiate involvement in the study before the onset of therapy but not in the course of it. Where a degree of research impact on therapeutic work is unavoidable this is documented both by the external raters and the analysts and incorporated in the evaluation.

The data collected in the course and at the end of therapy stem from four different observational vantage points: patient self-assessment, analyst assessment, health insurance data, and assessments by external raters (cf. Grande, Rudolf & Oberbracht 1997). The following is an (incomplete) overview of the instruments used and the domains captured by these assessments.

1. ***Patient self-assessment*** at the beginning and in the course of therapy; the following data are collected: social status / socio-demographic data / health and health behavior (items from the Berlin Jung study and the Berlin psychotherapy study, cf. Keller, Dilg, Westhoff et al. 1997, Rudolf 1991a) / SCL90-R (Derogatis, Lipman & Covi 1975) / Psychic and Social-Communicative Questionnaire PSKB-Se (Rudolf 1991b) / Inventory of Interpersonal Problems IIP (Horowitz, Strauß & Kordy 1993) / Health Scale (SG-Scale from the TPF; Becker 1989) / INTREX-Introject questionnaire (Benjamin 1974; Tress 1993).
2. ***Analyst assessment at the outset and termination:*** ICD-10 diagnoses (Dilling, Mombour & Schmidt 1991) / conflicts, structural level, severity of impairment (short version of OPD) / Initial Working Alliance iTAB (Grande, Porsch & Rudolf 1988; Rudolf 1991a) / physical symptoms and psychic symptoms (Heidelberg Documentation System, Rudolf, Laszig & Henningsen 1997).
   Analyst assessment in the course of therapy: information on setting and

interruptions / significance of and changes in symptomatology over the preceding 3 months (free description) / analytic process and cooperation, contents and themes in the therapeutic work (free description) / session protocols / Working Alliance TAB (Grande, Porsch & Rudolf 1988; Rudolf 1991a).

3. ***Health insurance data:*** number of days in hospital, sick leave, use of medical services 3 years prior to therapy and 3 years after termination of therapy; data provided by the health insurance institutions.
4. ***Assessment by external raters:*** OPD rating, focus selection and HSCS rating in the course of treatment based on videotaped interviews (explained in detail below).

The last of theselines of inquiry is a special feature of our study, given that the use of external observers is unusual in connection with psychoanalytic therapies. Practically all other existing studies limit themselves to assessments by patients and/or analysts, thus foregoing the independent and hence more objective judgment of external observers. The rationale for this is based on apprehension that the psychoanalytic process might be impaired by third-person involvement. Some studies draw on tape recordings of sessions but these cannot provide information matching the quality of clinical interviews where the degree of change achieved is subjected to systematic verification. In our study, clinical interviews carried out at regular intervals in the course of treatment by external assessors supply the material for the subsequent assessment of process and outcome by independent raters. This feature sets the study apart from existing empirical psychoanalytis research and represents one of its main methodological specialties.

The number of patients (N=30 for each group) may appear small in terms of statistical power compared with the methods usually used to measure therapeutic outcome and differential treatment effects. But the drawbacks of a small number of cases can be compensated for by specific hypotheses concerning the differences between the two forms of therapy and the use of instruments sensitive enough to capture those differences. In the study this is achieved by the use of instruments specifically designed for the psychoanalytic approach, notably the Structural Change Scale (see below).

In addition, restricting the study to a relatively small number of cases means that the use of time-consuming study procedures becomes a viable proposition. For example, the rating of one single videotaped interview takes 16 hours on average; the number of interviews per analysis can be anything from 6 to 12 or more, depending on the length of the treatment. No less time-consuming are the qualitative text evaluation procedures used to study the written reports of the analysts on the course of therapy. The material thus

gathered is so extensive and detailed as to make individual case studies feasible over and above the findings on the groups.

3. An OPD-based procedure for measuring change

3.1. Operationalized Psychodynamic Diagnosis system (OPD)

We have already indicated the major significance of the methods developed by the *Operationalized Psychodynamic Diagnosis* system (OPD) Study Group for the investigation of the process and the effects of psychoanalytic treatment. The OPD (Arbeitsgruppe OPD 1998) encompasses *five axes*, of which three are *psychodynamic* in the stricter sense of the term: those pertaining to "Relationship" (axis II), "Conflict" (III), and "Structure" (IV). The other two axes assess illness related behavior with respect to the preconditions of treatment (motivation, resources, etc.) and psychiatric disorders in accordance with the *International Classification of Diseases* (ICD-10; Dilling, Mombour & Schmidt 1991). For the study design envisaged here, only the three psychodynamic axes are relevant.

- *The OPD Relationship Axis*: The *Relationship Diagnosis* identifies the core dysfunctional relationship pattern displayed by a patient. Integral to this pattern are interpersonal behaviours and positions taken up by the *patient* and his/her *objects* in the core problematic relational constellation repeatedly established by the patient. The specific quality of these positions and the relational behaviour associated with them is described for each patient individually with reference to a given list of 30 items.
  The first step is to map the pattern from the *subjective experiential perspective of the patient*. Here we draw on relationship episodes reported by the patient in the course of the interview - these allow conclusions about the internal ideas and perceptions entertained by the patient in connection with the problems he/she has in handling interpersonal relationships. – The second stage is to describe the pattern from the *subjective experiential perspective of others* (including the interviewer). Here we draw additionally on the relational behaviour of the patient in the interview itself, with the countertransference of the interviewer figuring as a source of information. The third stage integrates the two experiential viewpoints into a single *relation-dynamic formulation* combining the results of the first two stages to form a cogent relational gestalt (see Grande, Burgmeier-Lohse, Cierpka et al. 1997 for more details).
- *The OPD Conflict Axis*: Within the framework of *Conflict Diagnosis*, 8 conflict types are defined as having a potentially crucial effect on the lives of the patients. The scaling is used to assess how significant each of these

conflicts is for the individual patient. The following types of conflict are encompassed: *dependency versus autonomy, submission versus control, need for care versus self-sufficiency, self-esteem conflicts, superego and guilt conflicts, oedipal-sexual conflicts, identity conflicts*; also included is the clinical syndrome described as *deficient awareness of feelings and conflicts*. The manual describes criteria for the elaboration of these conflicts in the following areas: partner selection, attachment behaviour/family life, family of origin, behaviour in the vocational/professional sphere, behaviour in the socio-cultural environment, and illness behaviour. A four-tier scale is used to assess whether and with what degree of intensity a conflict is present. In addition, raters are instructed to indicate which two of these conflicts are most important for the patients. A concluding assessment records whether the patient's handling of the conflicts corresponds to a more active or passive mode.

Table 1: OPD axes and focus list

Relationship Individualized formulation of a core dysfunctional relationship pattern	
Life-determining conflicts 1. dependence/autonomy conflict 2. submission/control conflict 3. care/self-sufficiency conflict 4. self-value conflicts	 5. guilt conflicts 6. oedipal-sexual conflicts 7. identity conflicts 8. deficient awareness of feelings and conflicts

Structural capacities/vulnerabilities	
1. capacity for experience of self *self-reflection* *image of self* *identity* *differentiation of affects* 2. capacity for self-regulation *affect-tolerance* *regulation of self-esteem* *regulation of impulses* *anticipation* 3. capacity for defence *intrapsychic defenses* *flexibility*	4. capacity for object-experience *self-object differentiation* *empathy* *awareness of total objects* *object-related affects* 5. capacity for communication *contact* *decoding other's affects* *encoding own affects* *reciprocity* 6. capacity for attachment *internalizations* *detaching* *variability of relationships*

- *The OPD Structure Axis*: In *Structure Diagnosis*, the patient's level of functioning and integration is assessed on the basis of the structural capacities and vulnerabilities displayed in terms of 6 dimensions. These dimensions record capacities for *self-awareness*, *self-regulation*, *defence*, *object awareness*, *communication*, and *attachment*. They are used to assess the patient's *level of integration* using the ratings "well-integrated", "moderately well-integrated", "poorly-integrated", and "disintegrated". The criteria for these ratings are defined in the manual for all dimensions. In a final assessment, structure is given a global rating, on the same four-level basis. As Table 1 shows, each of the 6 dimensions has a number of subdimensions identifying the various aspects of the superordinate structural capacity in question. For example, the *capacity for self-regulation* dimension encompasses the subdimensions tolerance of affects, regulation of self-esteem, regulation of impulses, and anticipation (Rudolf, Oberbracht & Grande 1998).

3.2 Considerations bearing upon the use of the OPD

As noted above the usual devices for measuring change define improvements in the course of therapy in terms of the gradual alleviation of pathology (symptoms). In the case of the Operationalized Psychodynamic Diagnosis, however, this model has only limited significance. There are three reasons for this:

- Studies on 12-week inpatient therapies (Grande, Rudolf & Oberbracht 2000) have shown that OPD findings are relatively stable over time and show very little change in relatively brief therapies. This is scarcely surprising if we remember that the OPD is designed to capture difficulties located at a deeper level in the patient's personality and hence less easy to change than symptoms or symptomatic behavior (cf. Schulte 1995; Grande & Jakobsen 1998).
- In findings of a psychodynamic nature the model of therapeutic "improvement" of pathological conditions has only limited relevance because here change does not take place in terms of "more“ or "less“ but rather along the lines of a qualitative reshaping or an enhanced integration of problematic aspects of the OPD profile. In the successful course of an analytic process a patient's central conflicts are not neutralized; it would be more accurate to say that they are constructively modified and better integrated in the important spheres of life. Nor does the central problematic relationship pattern become "diminished" in the course of a successful therapy; what happens instead is that it loses more and more of its compulsive character, involves less subjective suffering for the patient and is recast in qualitative terms.
  With respect to the structural vulnerabilities of the type identified in the “Structure” axis of the OPD it would be more fitting to regard improvement in terms of the disappearance or reduction of pathological abnormalities. For example, in the course of successful treatment a patient's affect tolerance or self-object differentiation may change and this change may indeed be reflected in the rating scores. But here, too, it often seems clinically more appropriate, in the case of therapeutic success, to speak of an enhanced integration of certain vulnerabilities, which by no means implies that the latter have simply vanished as a theme in the patient's life.
- A further problem is that for individual patients not all the sections of the OPD profile may be equally relevant in change terms. There are always a small number of pathogenic conflicts and structural vulnerabilities that are especially significant for the specific problems of a given patient. Frequently, other abnormalities can be interpreted as secondary repercussions of these central problem areas. This small set of individually crucial areas can be regarded as nodal points in a network of dynamic interrelations on which other problems depend. They thus represent basal reference points for any treatment aiming at substantial therapeutic change.

3.3 The focus concept

A technique for measuring change on the basis of the OPD must be designed in such a way as to take due conceptual account of the difficulties listed above. In our study we do this by defining *change as restructuring in the sense of a growing integration of specific problem areas that are of central significance for a patient's psychodynamics.* We assume that it is possible to define for every patient a limited number of such specific problems that can be used to observe therapeutic change. We also refer to these problem areas as "foci", but it is essential to note that in the present context these are *research foci* and not therapeutic foci, in contrast to normal parlance.

The selection of these foci is undertaken via expert assessment by the external raters (cf. fig 1). The problem areas rated here as foci are those that are presumed to sustain both the patient's psychic/psychosomatic symptoms and his/her interpersonal problems. One problem area from the OPD spectrum is judged as being central and selected as a focus, in the sense that here something will have to change if the patient's problems are to be alleviated or dispelled. Defining the foci therefore is in the nature of establishing a case-related psychodynamic hypothesis specifying a patient's change-relevant characteristics.

Technically the procedure is that five central problems for each patient are selected from the OPD sectors Relationship, Conflicts, and Structure. This choice is based on the range of 30 potential problem areas listed in table 1. These areas derive from the core dysfunctional relationship pattern, the 8 conflicts and the 21 subdimensions from the Structure axis. In former studies (Grande, Rudolf & Oberbracht, 2000) we have established that the selection of 5 foci is sufficient to home in on the most important aspects of a patient's psychodynamic constitution. These studies have also demonstrated that in every case the habitual dysfunctional relationship pattern should be defined as one of the foci. The remaining problems are selected from the areas Conflict and Structure, with the proviso that at least one problem area be selected from each of these axes. Thus the selection of foci can be weighted in favour of conflicts or structural vulnerabilities depending on the severity of the structural impairment displayed by a given patient. This reflects clinical experience of the way in which, depending on the nature and severity of an impairment, the diagnosis and treatment of patients will place greater emphasis either on structural features or on unconscious conflicts.

Fig. 2: The Heidelberg Structural Change Scale (HSCS)

Stages		Excerpt from the manual
1. ***Focus problem warded off***	**exact match** **1** **1+** **tendency↓**	The problem is completely unconscious; experiences connected with it are evaded; problematic behavior is ego-syntonic; the patient has "no problems" with the critical area
2. Unwanted preoccupation with the focus	**tendency↑** **2-** **exact match** **2** **2+** **tendency↓**	Unpleasant feelings and thoughts in connection with the problem area can no longer be immediately rejected; but preoccupation with the problem is reluctant; external confrontations with the problem take place but are rejected as disturbances; no realisation that the problems might be associated with the patient's own person
3. Vague awareness of the focus	**Tendency↑** **3-** **exact match** **3** **3+** **tendency↓**	Patient notices/suspects the existence of a problem that is part of him/herself and cannot simply be rejected; in the course of repetition the problem takes on a continuing existence; negative affects originate from the tension between the insistent nature of the problem and the patient's defensive/aversive attitude
4. Acceptance and exploration of the focus	**tendency↑** **4-** **exact match** **4** **4+** **tendency↓**	The problem starts to take on a new shape in the patient's consciousness; incipient indications of an active, "head-on" preoccupation with it; the problem can now be formulated as an "assignment" and hence be made the subject of therapeutic work; destructive, rejecting responses may interfere with this attitude but can no longer undermine it altogether

5. Deconstruction in the focus area	**tendency↑** **5-** **exact** **5** **match** **5+** **tendency↓**	Querying and disintegration of accustomed coping modes; uncertainty about evaluations of own person and others; perception of own limitations and deficiencies; resignation and moods of despair alternate with urges toward reparation; old modes are lost and cut off, new ones not yet accessible
6. Reorganization in the focus area	**tendency↑** **6-** **exact** **6** **match** **6+** **tendency↓**	Abandonment and final relinquishing of accustomed coping modes; in his/her own experience patient is increasingly self-reliant and able to take in hand and assume responsibility for his/her own life in the problem area; increasingly conciliatory approach to problem area; problem solutions spontaneous and unexpected; reintegration
7. Integration of the focus problem	**tendency↑** **7-** **exact** **7** **match**	Dealing with the problem has become something natural; the area has lost its special significance in the eyes of the patient; the problem is something belonging to the past, preoccupying patient - as a memory

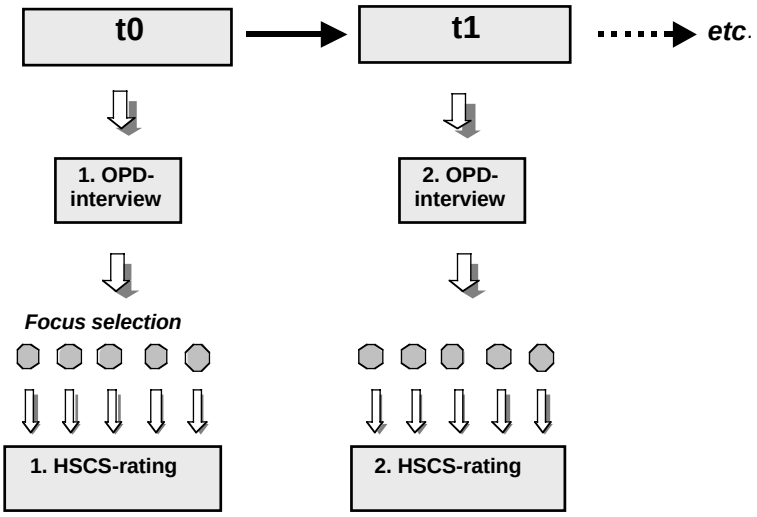
3.4 The Heidelberg Structural Change Scale (HSCS)

After selecting the foci the next step is to assess the state of therapeutic change the patient has reached with regard to these problem areas. For this purpose we use a modified form of the Assimilation of Problematic Experiences Scale (APES) by Stiles, Meshiot, Anderson & Sloan (1992). This scale enables us to describe more subtle changes in a patient's dealings with given structural problems. The term "assimilation“ here designates, with reference to Piaget, a process in which difficult experiences are acquired, integrated, and reshaped. The authors themselves conceptualize this process as being free of theoretical biases or allegiance to any specific therapeutic orientation. We have revised APES with an eye to more closely assimilating it to the exigencies of psychoanalytic treatment (Rudolf, Grande & Oberbracht 2000). The revision is in line with the logic set out in Freud's 1914 study "Remembering, Repeating and Working-Through“. Our modifications of APES are extensive, and hence we refer to this instrument as the *Heidelberg Structural Change Scale* (HSCS).

Each stage of the scale marks a therapeutically significant step, beginning with the increasing awareness of a problem area not perceived as such until then, extending through to the therapeutic working-through of the aspects and experiences associated with it, and from there to more basic changes resulting from it both in the patient's experience and in his/her concrete external behavior. With the aid of the scale patients are assessed as to the degree of structural change they have achieved at a given point in their treatment. A separate assessment is made on the scale for each of the five foci defined.

Figure. 3 gives an overview of the stages in the measurement of structural change. At the outset of therapy a semi-structured videotaped OPD interview (Janssen, Dahlbender, Freyberger et al. 1996) is used to rate the OPD, to select the five focal problems from the OPD focus list and to assess the patient’s ability to deal with these foci in terms of the Heidelberg Structural Change Scale (HSCS). At each new rating timepoint the 5 foci are re-assessed with respect to the HSCS on the basis of new interviews, thus pointing up the progress of restructuring within the separate focal areas. Two raters work independently at each stage of this rating process. After completion they are asked to arrive at a consensus rating on the basis of their independent judgments and to record this in a written commentary, thus producing a brief description of the level of therapeutic progress achieved for each of the focal areas. Fig. 9 and Table 3 give an example of the way the therapeutic changes for the 5 foci of an individual patient are recorded on the HSCS (for comments on this case see Section 4).

Fig. 4: Overview of Stages in Measurement of Structural Change



3.5 Reliability and validity

Investigations of the reliability of the method described here were undertaken in the framework of a study on inpatient therapy for patients with psychosomatic, neurotic and personality disorders (Rudolf, Grande, Oberbracht et al. 1996). We draw further material from the cases within the ongoing study reported on in this present article. The scores set out below are based on calculations collating data from both studies.

For the HSCS we have established interrater agreement of r=.77 (Pearson correlation) on the basis of N=306 individual focus ratings. – The reliability test for *focus selection* refers only to the 4 foci selected from the OPD sectors "Conflict" and "Structure" (axes III and IV). As the dysfunctional relationship pattern was pre-defined as a focus in all cases (see above) it is not possible to calculate rater agreement on it. On the basis of N=161 focus selections the result was a Kappa of .59. Given the large number of potentially selectable foci this figure is acceptable. It corresponds to a relatively conservative estimate of agreement because it takes no account of existing similarities between the foci *within* the 6 OPD Structure dimensions. As Table 1 shows, the subdimensions allocated to the Structure dimensions are relatively similar. A categorization of the foci on the basis of the 6 main dimensions produces an agreement result of a Kappa=.70.

Indications of the validity of the method can also be drawn from the inpatient study referred to. With reference to a study involving 49 patients, Grande, Rudolf, Oberbracht et al. (2000) report that the pre-post differences averaged for all 5 foci of a given patient show high correlation with the global outcome assessments of various members of the therapeutic team. As Table 2 shows, these correlations vary between .43 and .50. No other scale of change in this study had a higher degree of correlation with the global outcome. Indeed, the correlation between these assessments and the symptom change measurements "Somatization" (SOM), "Depression" (DEP), "Social Anxiety" (SA) and "Somatic Anxiety Symptoms" (SoA) was lower throughout (pre-post differences of the PSKB-Se, (Rudolf 1991b).

Tab. 2: The HSCS in relation to different assessments of therapeutic success

	*Global assessments of therapeutic success by...**		
Pre-post differences of... ⇓	Therapist	Therapeutic rounds	Staff
HSCS	.50**	.47**	.43*
Somatization	.49**	.34*	.35
Depression	.42**	.27	.26
Social Anxiety	.30	.11	.29
Somatic Anxiety Symptoms	.27	.25	.14

* N= max. 49 because of missings

These findings justify the conclusion that, taken in isolation, symptomatic changes do not suffice to capture what clinicians regard as therapeutic success. The study shows that the focus-related changes measured with HSCS map the global outcome of the treatment with greater clinical accuracy. This may have to do with the fact that clinicians (of a psychodynamic persuasion) do not rely on symptom improvement alone when assessing treatment success but inquire whether and to what extent patients have mode progress in the working-through of their central problem areas. Clinicians may have greater confidence in this form of therapeutic progress because it represents a sounder basis for further development after completion of therapy.

That this is indeed the case is borne out by the _ -year follow-up study by Grande, Rudolf, Oberbracht et al. (in preparation) on 39 patients from the same study. It showed that patients with a high score on the HSCS (averaged across 5 foci) at the end of therapy did better after discharge. The analysis of significant events in the external lives of the patient after inpatient treatment indicated that coping with those events was more adaptive if the patient had

achieved improved HSCS scores in the course of therapy (highly significant correlation of .42). This can be interpreted as meaning that patients were better able to cope with the demands placed on them by their external lives if they had gained an awareness of the problematic tendencies interfering with their coping efforts in those areas. The study also demonstrates that this is not possible before stages 3 or 4 on the scale, when perception and/or acknowledgment of the focus problem has been achieved (cf. Fig. 2).

These findings show that the HSCS can be used reliably and maps changes at a good level of agreement with the assessment of therapy success by clinical experts. They also strongly suggest that improvements on the HSCS correlate with patients' increasing ability to regulate and cope with problem-related demands placed on them in their external lives. All in all, then, these studies supply evidence that the HSCS is an instrument which can be used to measure changes on a deeper level than the merely symptomatic. In the next section we take an individual instance of psychoanalytic psychotherapy to show how structural changes can be measured with this instrument.

4. A case study

4.1 The patient: clinical data

Mr. B, 22 years old, responded to his girlfriend's termination of their relationship with depression and suicidal leanings. He had been subdepressive for a number of years before that and suffered from social anxieties impairing his career prospects. In the presence of others he regularly felt pressured and reacted with a markedly vegetative symptomatology. In compensation he cultivated notions in which he fantasized about being equipped with unusual intellectual abilities and artistic potential. After his parents' separation early in his life the patient grew up with his mother. His dependency on her was intensive and ambivalent. Despite their many conflicts he was hardly able to live a life of his own. He had occasional contact with his father, of whom he was critical but whom he also painfully missed.

According to ICD-10 this was classified as a depressive episode (F32.1) and a social phobia (F40.1). The following five problem areas from the OPD profile were established as foci for the patient: a.) the dysfunctional, maladaptive relationship pattern, b.) sexual/oedipal conflicts, c.) regulation of self-esteem, d.) contact, and e.) detachment (c. to e. from the Structure axis).

After separation, the patient embarked on a course of psychoanalytic psychotherapy involving 3 hours a week with a male analyst (recumbent). After 2.5

years and approx. 280 sessions, the therapy is now over and the data from it are available in their entirety. The follow-up studies have yet to ensue. The following delineates the course and the outcome of this treatment as reflected in the patient's self-assessment and the external examiners' ratings. The following scales and assessment instruments were used in the charting of the case:

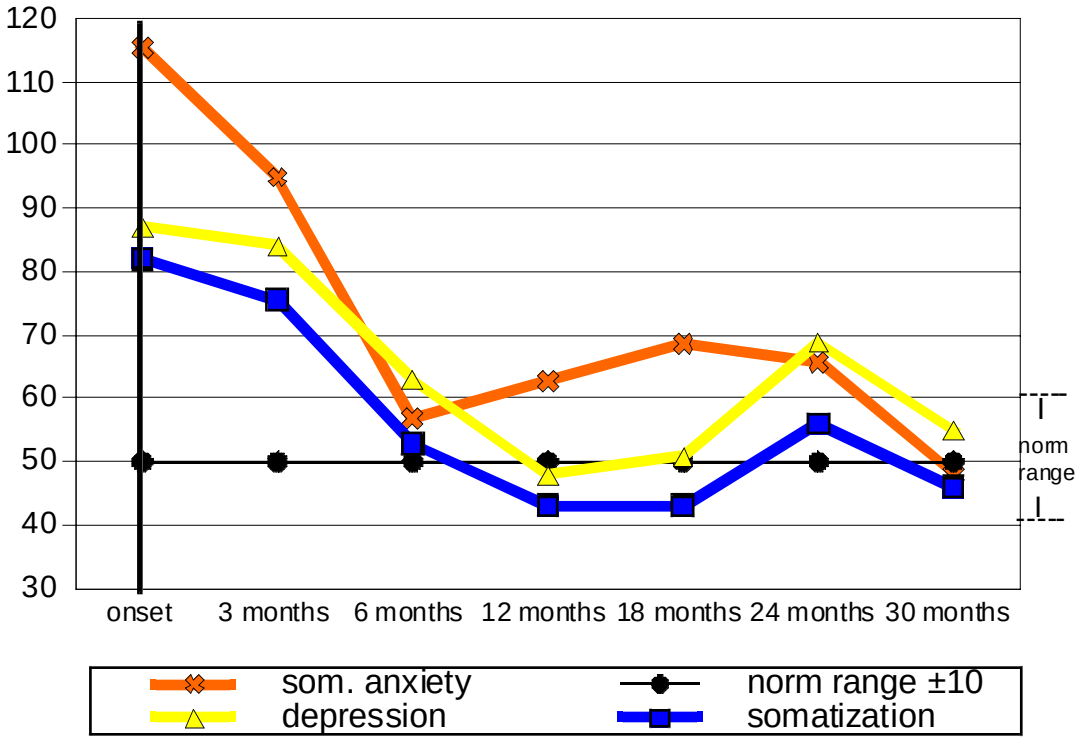
1. Symptom changes mapped by three PSKB-Se Scales (Psychic and Social-Communicative Questionnaire, self-assessment version; Rudolf 1991b): “Somatic Anxiety Symptoms”, “Depression” and “Somatization”.
2. Inventory of Interpersonal Problems IIP (IIP-D German version - Horowitz, Strauß & Kordy 1993).
3. Heidelberg Structural Change Scale (HSCS)
4. Freely formulated clinical observations by the external raters on the selected "detaching" focus (e.) and the changes discernible in the course of therapy.

Naturally the documentation of this case as given here is not complete because a large number of additional data have not been taken into account. We refrain from alluding to the psychoanalyst's perspective and his assessment of the analytic process. We also neglect the health insurance data and what they tell us about the cost of the medical services provided and the number of days the patient was off work sick. Instead we limit our view to the assessments listed in order to obtain a clearer picture of the ratio of symptomatic and structural changes displayed by Mr. B. In so doing we are also preparing the ground for Section 5 where we take a closer look at the relationship between psychotherapeutic and psychoanalytic treatment effects and refine the central hypothesis underlying this study.

4.2 Self-assessments of Mr. B.

Fig. 4 shows the progress of the symptomatology over the first two years of psychoanalysis, measured on the scales "Somatic Anxiety Symptoms", "Depression" and "Somatization" taken from the PSKB-Se (Rudolf, 1991b). The ratings are expressed as T-values; scores below 60 can be regarded as clinically “normal”. The figure shows a drop in the initially very high symptom scores to a normal range after a period between 6 months and 1 year; thereafter we have a reactivation of the symptomatology to a clinically abnormal score after 2 years. This applies notably to the scales “Depression” and “Somatic Anxiety Symptoms”. But after this temporary rise the scores on both scales ultimately return to the clinically normal range.

Fig. 4: Symptom change in the course of treatment



We find a very similar curve for the scales "over-introverted", "over-exploitable", "over-submissive", and for the IIP-D (Horowitz, Strauss & Kordy 1993), where the patient again had a quite high score at the outset. Here the reactivation trend in the second year of treatment was even more marked. But again we have a reduction of interpersonal problems toward the end of therapy.

Fig. 5: IIP scales "over-introverted", "over-exploitable" and "over-submissive"

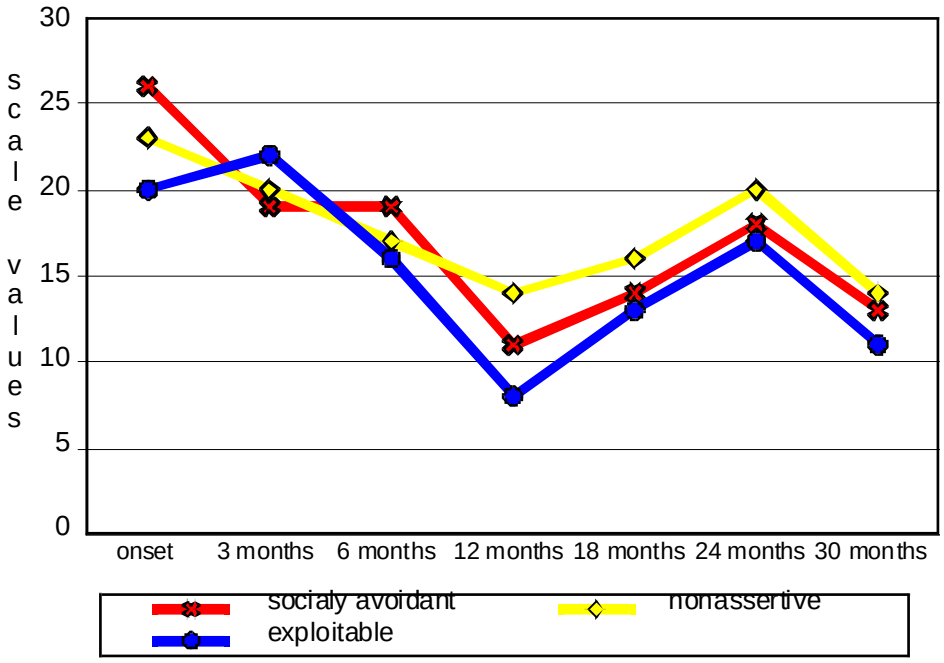
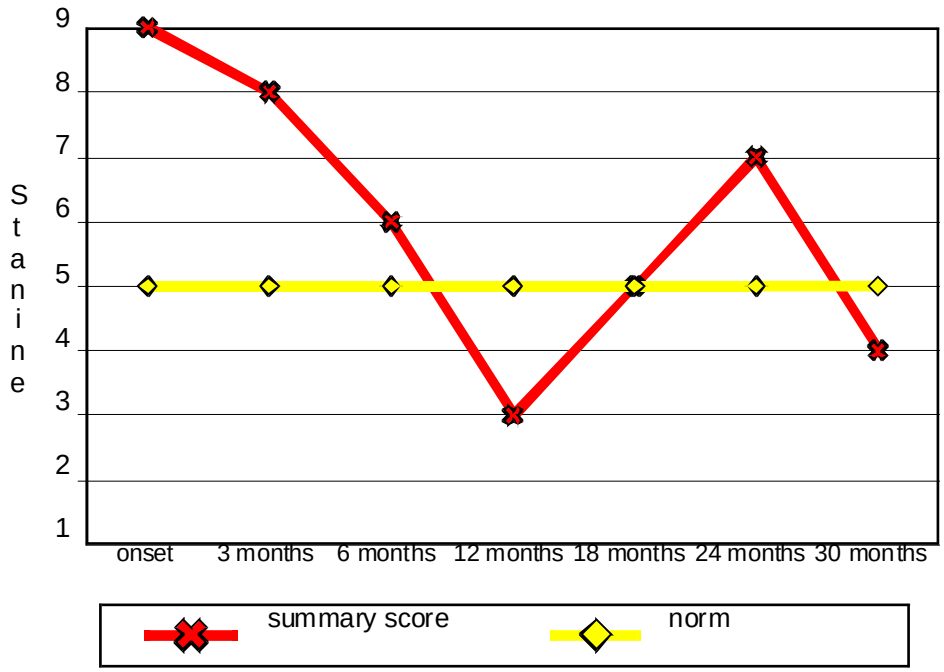


Fig. 6: IIP summary scale



4.3 Comments and ratings by the external independent examiners

Figures 7 and 8 show the development of the patient from the perspective of the external raters assessing the changes in the 5 focus areas on the basis of videotaped OPD interviews and using the Heidelberg Structural Change Scale. The figures show the scores for the individual foci in the course of time. The scores for “relationship pattern”,“detachment” (Fig. 7), and “contact” (Fig. 8) show continuous improvement and by the end of treatment are in fact very good. The focus areas “oedipal-sexual conflicts” (Fig. 7) and “regulation of self-esteem” (Fig. 8) also show improvement but after one year remain constant at stage 4 of the Scale “acceptance and exploration of the focus”. Of note is the fact that after 1.5 and 2 years of therapy the patient had reached stage 5 “deconstruction in the focus area” first for one (Fig. 7: detaching, score 5-) and then for two (relationship and oedipal-sexual conflicts, scores 5- and 5) focal areas. The Manual (cf. abridged version in Fig. 2) speaks in this connection of uncertainty, resignation and despair, perception and ultimate acknowledgment of the patient's own limitations and impairments and depressive affects bound up with this.

Fig. 7: HSCS-rating for the foci “relationship”, “oedipal-sexual conflicts”, and “detaching”

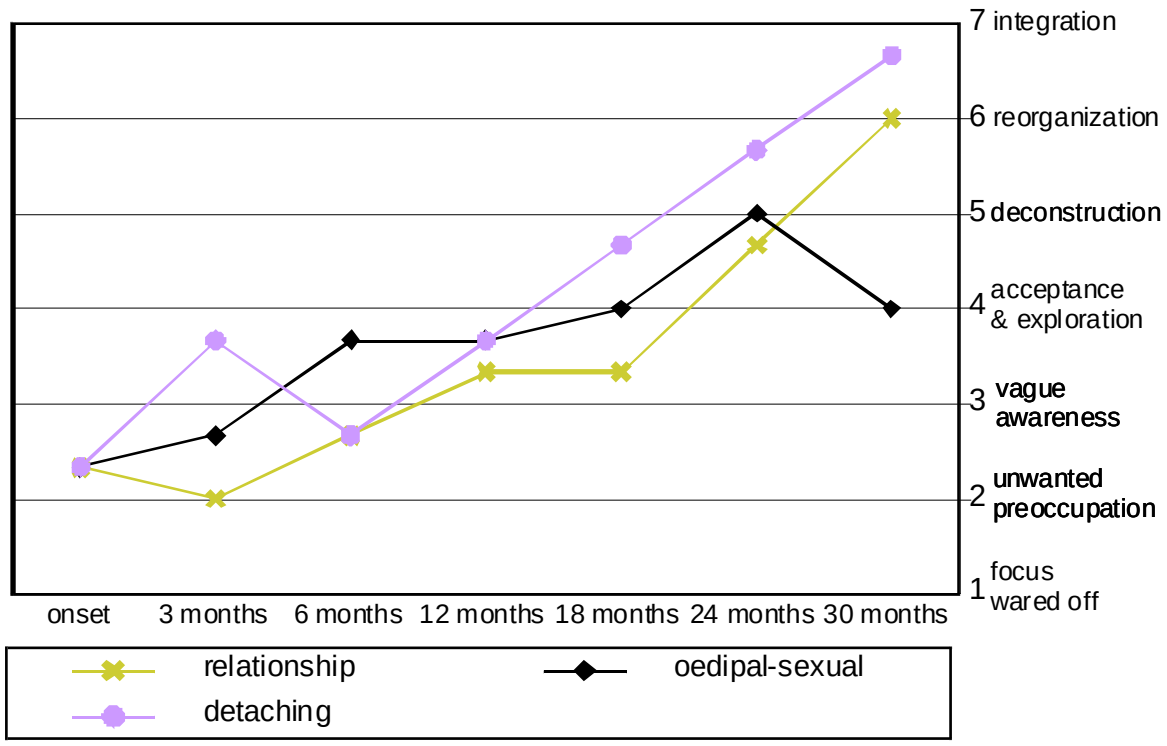
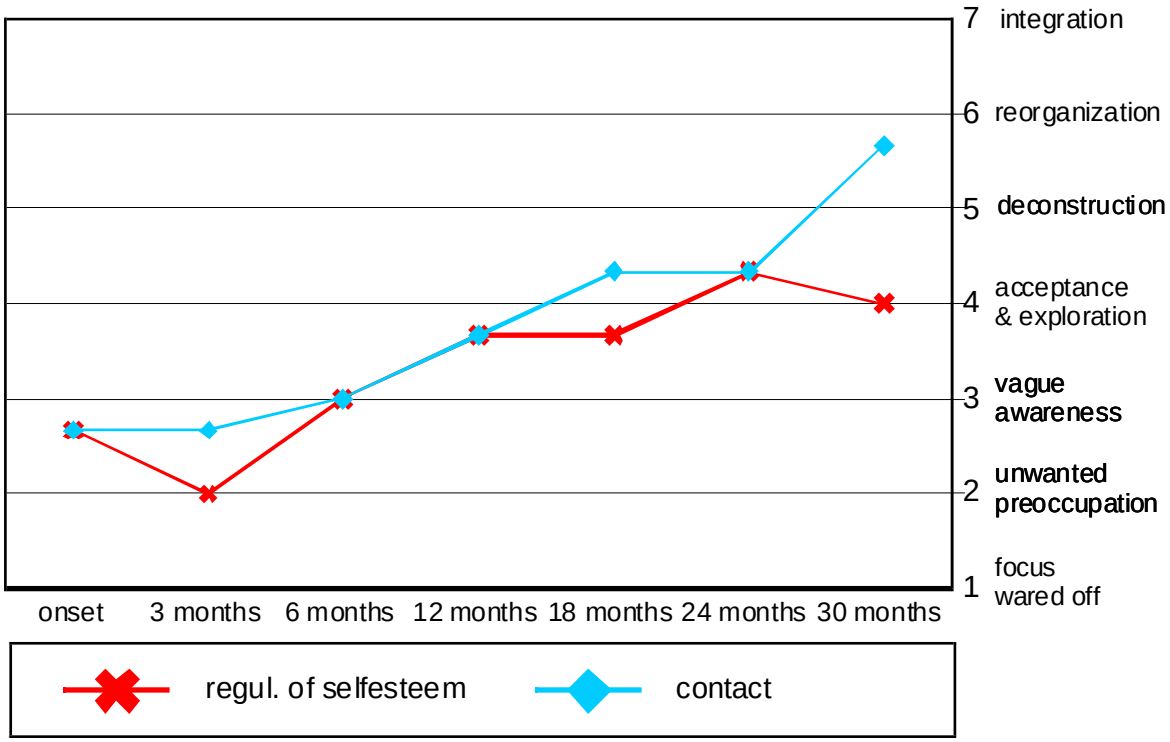


Fig. 8: HSCS-rating for the foci “regulation of self-esteem” and “contact”



As mentioned earlier, after their HSCS rating the external examiners set down a detailed commentary in which the specific form taken by the focal areas and the focal changes are described with reference to the contents of the interviews. These commentaries have the advantage of providing a readily usable clinical impression of the patient and the therapy. Table 3 shows a condensed version of these commentaries for one of the focal problems of Mr. B. The focus in question is "detaching", figuring in the focus list (Fig. 3) as a structural capacity/vulnerability and allocated to the OPD structure dimension “attachment”. We see here a development in which over the period of 2.5 years the patient moves through a defensive/anxious and at the same time aggressive distancing from the object to a more intensive involvement accompanied by ambivalence and feelings of depression; subsequently a genuine detachment takes place in the aftermath of which the patient can draw on a sound degree of autonomy and for that reason can afford without risk to seek close relations with the objects and open out to them.

4.4 Synopsis of the case

We can summarize the course taken by our case example on the various observation levels as follows: in the first year the patient develops from a more reluctant engagement with his problem areas (Stage 2 of the Structural Change Scale, Fig. 2) to active acknowledgment and exploration of his problems (Stage 4). During this period the somatic, psychic and interpersonal complaints disappear almost totally. At the beginning of the second year of therapy we see a qualitative difference. The patient experiences his problems more intensively. On the basis of the more firmly established therapeutic relationship he now ventures to, as it were, expose himself to them. At the symptom level this goes hand and hand with a moderate reactivation of symptomatology and a clear increase in the interpersonal difficulties experienced by the patient. A phase of more intensive analytic working-through has begun, which we allocate to Stage 5 ("deconstruction in the focus area") on the HSCS. Only after this phase of instability do the changes set in that in clinical terms appear soundly "organic" and firmly rooted, thus promising to be more than temporary. The follow-up will show whether this interpretation is valid.

Tab. 3: External raters' commentaries on development in focal area "detaching" (condensed version)

	HSCS score	**Patient's management of focus problem**
Onset	2+	Despair, depression and thoughts of suicide following separation from girlfriend; inability to live a life of his own; responsibility for this attributed to mother
3 months	4-	First rift in the union with the mother through realization that she will die some time; acknowledgment of having a part in this dependence; purchase of own washing-machine; twin-like relationship with a friend
6 months	3-	Engagement with the focal problem has become vaguer again, much acting-out in this connection; first meeting with father; welcomes analysis break because of fear of dependence on analyst

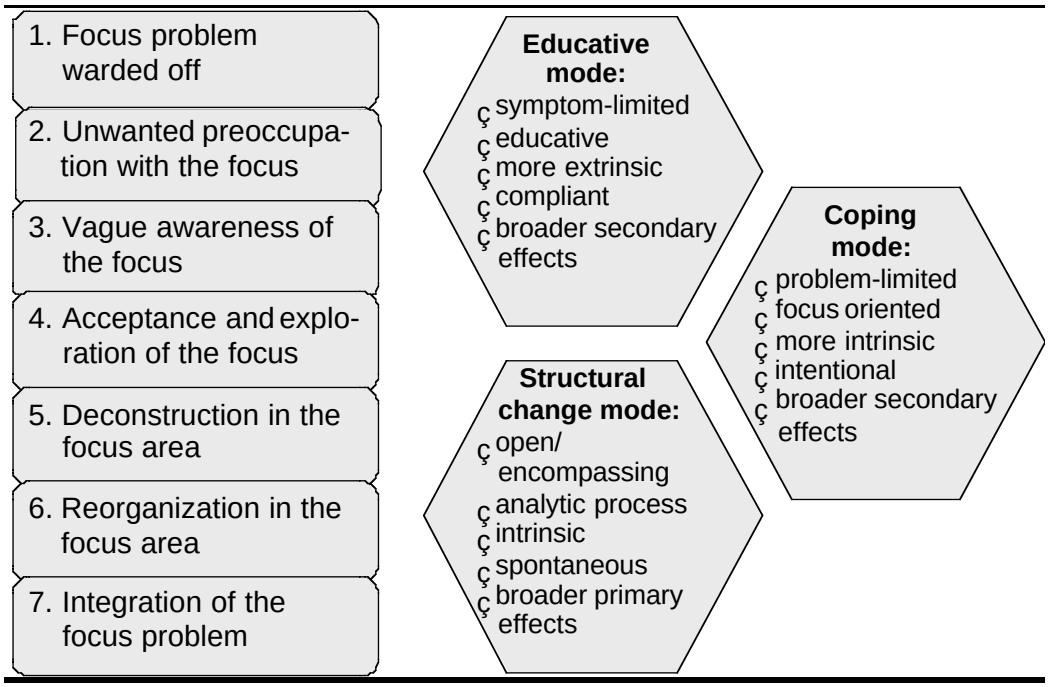
1 year	4-	Reflection on his "fateful union" with the mother; hate and conciliatory reports on the mother, more differentiated, three-dimensional description of mother; interest in sexuality and own attractiveness; loosening of bonds with friend, more clearly delimited relationship; first emphasis of autonomy vis-à-vis interviewer
1.5 years	5-	Mourning over contradictory relationship with mother and guilt feelings; disappointed at relationship with father; feels wrongly treated in the analysis; makes indirect accusations in OPD interview (dryness of mouth!); expresses longing for a girlfriend
2 years	6-	Conciliatory moods where, though regretting what his mother was unable to give, he shows understanding for the restrictions she placed on him and takes a caring view of this; only very occasional defiant bids for delimitation; new self-assurance with regard to own abilities and potential; feels more autonomous
2.5 years	7-	Is able to empathize with mother and support her without worrying about self-delimitation; is also able to accept support from another woman; is in love again; feels enterprising and autonomous.

5. Structural and psychotherapeutic changes

In our discussion of a case example, stage 5 on the Heidelberg Structural Change Scale and the temporarily destabilizing processes bound up with it mark a caesura allowing a distinction between the effects of psychotherapies and psychoanalyses in terms of ideal types. Clinical experience shows that in psychoanalyses external changes may take a long time to materialize, appearing spontaneously at a later date when a solution has had sufficient time to mature inwardly. In terms of the process model we have developed, this occurs at Stages 6 and 7 when old, consolidated defence or coping structures have disintegrated (Stage 5).

The spontaneous character of changes deriving from an analytic process is quite conceivably one feature clearly distinguishing psychoanalyses from other forms of psychotherapeutic treatment aiming at a specific therapeutic change either via focussing or direct educative intervention. Fig. 9 shows how various modes of change can be allocated to certain sections of the HSCS.

Fig. 9: Modes of therapeutic change



- *Educative mode:* At Stages 1 and 2 of the Scale, positive changes are most likely to be achieved if the therapeutic approach is symptom-related and educative. Here the patient is more extrinsically motivated in his attempts to bring about change and (in productive instances) behaves in a compli-

ant, cooperative way. Correspondingly the changes themselves are symptom-related. At a secondary level, however, the decrease of symptomatic impairment can definitely trigger notable other effects, e.g. via a gain in the subjective awareness of personal competence and an improvement in self-esteem, which in its turn may then generate further favorable effects of a nature not necessarily specific to the intentions of the therapy.

- *Coping mode:* Distinct from this is a coping mode where the therapeutic approach is geared to the inner psychic problem domain connected with the symptomatology and sets out to uncover this focally. The patient's insight into his/her own problem enables him/her to attain greater ability to manage their own problems in the form of conscious regulation and to bring about change via intentional endeavor. Here the motivation is more intrinsic. From this mode broader positive effects may derive, as described above (coping mode).
- *Structural change mode:* The third mode is the mode of structural change proper. Here the therapeutic approach is basically open and characterized by the willingness of the therapist to take comprehensive account of the personality of the patient in its conscious/unconscious forms of expression and to allow for an analytic process. Here again, the patient's changes are intrinsically motivated but essentially they are not consciously desired but transpire spontaneously, sometimes surprising the patients themselves. The effects triggered by this mode are primarily broad in scope and at the same time specific to the equally broad therapeutic intention.

It needs to be stressed that these modes can by no means be paired off with therapy techniques in a clear-cut manner. Within behavioral therapy, for example, there are techniques that would certainly qualify for inclusion in the coping mode. Equally, certain intrinsically psychodynamic therapies may display educative elements or in certain cases initiate an analytic process, even though the setting does not comply with the classical requirements. For this reason the change modes in the Figure are allocated to the stages on the Scale in a way intended to be approximate and overlapping.

In principle, however, our working hypothesis for the study as a whole is *that in psychoanalysis there is a higher incidence of developments corresponding to the third change mode (structural change) and described by Stages 5 to 7 on the State of Structural Change Scale*. Vice versa, for psychotherapies we expect a higher frequency of changes taking place at Stages 3 and 4 and corresponding to the coping mode. This specific hypothesis is the central distinctive assumption of the study and will be subjected to statistical verification via comparison between the groups.

We anticipate that this approach will do more than merely furnish global evidence for the superiority of one therapy form over another. We expect it to supply a better understanding of the way in which various different processes achieve their effects, of the processes they set in train, the likelihood not only of a good sustainable therapy outcome but also of the risks of standstill and failure. The structural change model developed by the authors and condensed in the Scale represents a viable method of imaging change processes beyond the symptom level and hence of capturing the specific outcomes traceable to psychoanalysis in the therapeutic change process.

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