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The single case study approach as a bridge between clinicians and researchers

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The discovery of a narrative science

It all started with the "talking cure". Let me remind you that more than a century has passed since a patient of the Viennese physician Josef Breuer in 1881 naively labeled her treatment as talking cure (Anna O). Today this is quite in tune with a shared view that the many psychotherapies are correct in attributing a pivotal position to the talk in psychotherapy; however is it fair to say that "in comparison to the behavioral (i.e. proxemic or kinesic) or physiological constituents of psychotherapeutic interaction, the talk which transpires between therapist and client has consistently been in the critical limelight in psychotherapy research, theory and practice" (Russell, 1987, p. 1; 1993). For many years Freud's rich clinical observations on his patients' talking supported the idea that only by telling these observations as stories one could do justice to what had transpired.

Freud's seemingly famous, yet somehow resignative statement in the "Studies on Hysteria" (1895) that his "case histories should read like short stories and that, they lack the serious stamp of science" (p. 160) may be made responsible for an unnecessary sharp divide between science and psychoanalysis. But even using Freud's work one may find useful demonstrations what a treasure the archived clinical notes can be.

Take as example the case report on the Ratman (Freud, 1909) and go to E. Zetzel's "Additional notes" from 1966:

«It was my intention when I first undertook this study to base my discussion primarily on the 1909 report published in Freud's Collected papers. Fortunately, however, I decided to reread the case history in the Standard Edition. I was surprised and excited by the discovery I made - namely the unique salvage of Freud's daily notes covering the first four months of this analysis... In striking contrast with the 1909 publication, there are more than forty references to a highly ambivalent mother-son relationship in the original clinical notes» (p. 129).

For discourse analysts story telling is highly estimated as an important way of transporting individual experience into shared knowledge (Ehlich, 1980). Thus psychoanalysis became a narrative science using narration aspiring to narrative truth (Forrester, 1980; Spence, 1982). To highlight the importance of this methodological decision, imagine the development of chemistry if chemists would have evolved the habit of reporting what they had seen in their test-tubes having performed most exciting experiments: a science of chemistry based on reported colours, of blue and red and green reactions in the little tubes after having done this and that. Or imagine a science of musicology with musicians sharing their most personal experiences by writing case histories, or by letting consumers telling their emotional involvements after a piano concerto. What is wrong about such an approach ? It well could be that one could built a science of musical experience by

collecting a large sample of these reported subjective testimonies. It wouldn't work for chemistry that's why the alchemist in vain tried to find the receipe how to make gold. To leave these rather fancy examples let me remind you of the Brüder Grimm, the two professors from Göttingen who systematically started out to collect orally transmitted fairy tales. Since long there is a well developed field of fairy tale research with highly sophisticated methods to analyze the available large collections from all over the world (Propp, 1928/1958). Why do I tell this ?

In our field for many decades, oral tradition and loosely written case studies constituted the major means of reporting the insights gained by introducing the therapeutic situation as a field for discovery oriented research. The fairy tale example points out that this in itself would not have been a major obstacle for gaining systematic knowledge if there would have been a systematic effort for adaequate sampling, if we would have a representative corpus of case studies. But no one yet has undertaken the sysiphus task to even try to specify the characteristics of the patients reported about in the thousand and one case vignettes buried in the journals of the psychoanalytic community. However not only in German psychology we lately register a renaissance of the old discussion on ideographic versus nomothetic psychology which wrongly manifests itself as a discussion on qualitative versus quantitative approaches (Jüttemann, 1983) but also in the United States one finds that "the case study method in psychology and other related disciplines" (Bromley, 1986) has been rediscovered lately.

The usefulness of narrative accounts has been the topic for philosophical reverberations in the everlasting discussion on "the standing of psychoanalysis" (Farrell, 1981) as hermeneutics or natural science (Edelson, 1985). The shared experience of the psychoanalytic comunity points out that clinical psychoanalytical research mainly has relied on the narrative case approach.

«The whole corpus of psychoanalysis....comprehending the phenomena of both nornal and abnormal personality development and functioning, attests brilliantly to the explantory power pf the theory derived from data of the consulting room» (Wallerstein & Sampson, 1971, p. 11).

However, ever since that by now classic paper of Wallerstein & Sampson (1971) it is clear that " we need at least equally cognizant of the limitations of the case study method as a source of prospective continuing knowledge" (p. 12). They painstakingly record the debate that has been started by Glover's (1952) paper on "research methods in psychoanalysis". There Glover focused on the distorted biases forstered by the very conditions of analytic life:

«Analysts of established prestige and seniority produce papers advancing a new theoretical or clinical viewpoint or discovery. If others corroborate they tend to report that; but if others feel reason to reject it, this scientific 'negative' does not get reported. So ultimately it is canonized as 'so-and-so has shown it» (p. 403).

This problem recently has been recognized as the file-drawer problem occuring in many scientific fields.

The post-Freudian development of the preparation of case histories and treatment reports has in fact been characterized by a fair increase in the number of extensive case reports. In the last few years there has been an unmistakable and growing tendency for more and more analysts to make their clinical work accessible to readers. Given adequate preparation, this can put the critical discussion within the profession on a sound footing. However, the "vignette" is still the primary form of presentation.

A vignette is characterized by unity, subtlety, and refinement and serves to illustrate typical psychodynamic constellations. In it the implications for the analyst's therapeutic actions are secondary in comparison with this focus of interest.

In order to find out how much the problem of vignette reporting had been overcome and replaced by more epic descriptions I scanned the psychoanalytic literature for extensive treatment reports (Kächele, 1981; Kächele & Thomä. 2009). Up to 1980 I found 36 publications extending 20 pages of print in the psychoanalytic literature past Freud. Interestingly enough there was a definite increase from the sixties onward; it is peculiar that the majority of patients attracting these efforts were psychotics and/ or children. All these reports were based on note taking procedures during or immediately after the sessions. Analysts as writers have not become a frequently met species even though some of these treatment reports have become didactic documents par excellence. For example Meltzer (1978) spelling out "The Kleinian development" re-analyzed M. Klein (1961) „narrative of a child analysis„ week-by-week. Treatment reports as comprehensive as Dewald's (1972) voluminous 600 page long description - based on in-session careful notes - demonstrate the research value of clinical carefully reported single cases. This report provoked a serious discussion whether this case was a true psychoanalysis or only a psychoanalytic psychotherapy. At least the material enabled such a discussion whatever the merits of such politiziced discussions may be.

Conclusion: there is nothing wrong with clinical notes, as long as they are available for public scrutiny - this constitues the essence of any scientific enterprise.

The battle for tape recording

A paradigmatic change came about by the vigourously debate on introducing the technique of tape recording into the psychoanalytic situation. Apart from Earl Zinn's early phonographic efforts (1933; see Shakow and Rapaport, 1964, p. 138) recording within the psychoanalytic community was anathema for many and is still for most. Paul Bergman's "experiment in filmed psychotherapy" at the National Institute of Mental Health instigated by David Shakow (Bergman, 1966) was an early formidable exception. Sadly engough the filmed material of this case has disappeared.

Psychoanalysis did not take advantage of these numerous possibilities for a long time. At the core of many misgivings was the concern that the presence of a tape recorder could have consequences similar to those of a third party, namely that the patient "would become silent as soon as he observed a single witness to whom he felt indifferent" (Freud, 1916/17, p. 18). Yet it has long been known that patients, with few exceptions, readily give their approval to having the interview recorded, discussed in professional circles, and evaluated scientifically. It is not unusual for patients to - correctly - expect to profit therapeutically from having their analyst concern himself especially intensively with their case. Of course, the patient's initial approval and his motivations are just one aspect; another and decisive question concerns the effects of the tape recording on the psychoanalytic process.

By now it has been accepted that some analysts feel comfortable with tape recording the analytic sessions and that we do not have strong evidence on detrimental aspects.

At the present state of our knowledge evaluation of the overall influence of tape recordings on the psychoanalytic situation is positive. Obviously, both participants are affected by the fact that third parties are involved; but such an involment is common in supervision and peer review reports. Meanwhile the scientific research community has collected systematic experiences on tape recordings and their use for empirical studies (Kächele *et al*., 1988).

Hartvig Dahl's (1972, 1974) work on 363 sessions of a young lady formerly in treatment with M. Gill then - after Gill's illness - transferred to a young female analyst provides another example of a fruitful collaboration of the treating analyst with a researcher by providing a thematic topic

index for the treatment. The case of Mrs C s- treated by Hartvig Dahl himself[1] - has been studied intensively by quite some researchers on the East and West coast of the United States (Bucci, 1988, 1997; Dahl, 1988; Horowitz, 1977; Jones u. Windholz, 1990; Weiss & Sampson, 1986).

In the first edition of the *Handbook of Psychotherapy and Behavior Change* (Bergin & Garfield, 1971) Luborsky and Spence complained about the paucity of primary data - data accumulated during actual analytic sessions.

«Ideally, two conditions should be met: the case should be clearly defined as analytic....., and the data should be recorded, transcribed. and indexed so as to maximize accessibility and visibility»(1971, p. 426).

The Ulm group started such an archive that would centralize recorded psychotherapy data in 1979.

While I was recording my first two analytic cases and at the same time working as a junior research fellow together with Erhard Mergenthaler we were faced with the sheer amount of transcribed sessions from our first research case treated by Dr. Thomä. Out of the necessity of how to handle the data of some 500 sessions we developed a computer based storage device what was to become the Ulm Textbank (Mergenthaler & Kächele, 1988), a computer based archive with built in tools for retrieval and text analysis (Mergenthaler & Kächele, 1988).

In 1989 Sherwood Waldron initiated the Psychoanalytic Research Consortium as an archive for psychoanalytic recordings and transcriptions from North America (Mergenthaler & Kächele, 1993, p. 53). Most recently Lester Luborsky and his group published The Penn psychoanalytic treatment collection: A set of complete and recorded psychoanalyses as a research resource (Luborsky *et al*., 2001).

From soft to hard methods

Public availability of data is crucial, not the kind of material. For each material, be it case reports, therapist's notes, diaries of patients, or transcribed tape-recorded sessions modern social science offers a vast choice of methods. One of my favourites demonstrating the power of textual critique as a soft tool is Steven Marcus re-analysis of Freud’s Dora-case (1976). That psychoanalysis essentially, but not only, is a conversation was pointed out by Freud (1917), however the various methods of discourse analysis are just beginning to be recognized by analysts. Viktor Rosen (1977) initiating the New York Study Group on linguistics made a point that the study of language should be at the forefront of our work. A few fine examples have been provided by Labov & Fanshel (1977) and by Flader et. al. (1982). Streeck (1999) has followed up this line of detailed microanalytic investigation demonstrating that speech per se has interactive qualities that contribute to the staging of conflict in the psychoanalytic situation.

The debate on qualitative versus quantitative methods has become more and more less relevant. We all are aware that quantitative categorization needs qualitative definitions first. So developing manual-based coding of clinical concepts needs careful conceptual analysis (Dreher 2005), as has been demonstrated by f.e. Luborsky many attempts to quantify significant clincial core concepts.

Ever since social science had invented the Likert rating scale technology, there is no psychoanalytic concept that could not in principle be studied. And with the introduction of computers in the early seventies psychoanalytic process research hooked up with a technology that had paved its way in the historical and political sciences where archives are the sine qua non for researchers.

[1] Most of us still seem to be afraid to disclose the identity of being the therapist in a research case; in terms of promoting research this now seems contraproductive.

The need for specimen cases or is N = 1 enough ?

Research findings have to be replicated in order to prove their value. The core idea of having specimen cases is that they allow not only testing individual hypotheses for single cases, but allow testing the comparative fruitfulness of various methods. Most likely the Schreber case (Freud, 1911) has stimulated the largest amount of critical discussions just because it was a publicly available document (Kächele, 1981). As single case research repeatedly has been called the most suitable approach for evaluating psychoanalytic treatments (Wallerstein & Sampson, 1971; Edelson, 1988, p. 234; Hilliard, 1993), let me remind you of an elegant statement from the two well-known statisticians, Edwards & Cronbach (1952):

«Information gained from an experiment mounts more or less in proportion to factorial *n* where *n* is the number of uncorrelated response variables. By this estimate five test can report 120 times as much knowledge as a single test in the same investigation!...Efforts to refine measurement has the same beneficial effect on the power of an investigation as adding to the number of cases».

The history of hard core psychoanalytic single case research must be dated to Luborsky's study (1953). In 1946 as a recently graduated doctor of psychology he, supervised by R Cattell, had a patient coming for twelve weeks five time a week:

«The first hour of each sesion consisted of psychological testing, followed by a second hour of recorded free association that included the recounting of dreams, associations to the dreams, and unguided free association. The same tests or alternative forms were repeated daily in the hour before each session of psychotherapy. Measures were derived from objective personality tests, physiological tests, dreams, free associations, and self-observation» (Luborsky, 1996, p. 180).

One may rightfully wonder why this remarkable experiment has been never replicated or even become a paradigm for experimental psychoanalysis (Kächele *et al*., 1991)?

For psychoanalysts the most informative source to get a balanced view on the pro and cons of single case studies I may recommend the chapter by Fonagy & Moran (1993):

«Individual case studies attempt to establish the relationship between intervention and other variables through repeated systematic observation (Chassan, 1967, 1979)… The observation of variability across time within a single case combines a clinical interest to respond appropriately to changes within the patient, and a research interest to find support for a causal relationship between intervention and changes in variables of theoretical interest. The attention to repeated observations, more than any other single factor, permits knowledge to be drawn from the individual case and has the power to eliminate plausible alternative explanations».

There are different types of individual case studies. Edelson (1986) proposed six requirements for an empirical - as contrasted to a clinical - case study:

1) There is a clear statement of the hypothesis
2) The phenomena are made intersubjectively accessible
3) Negative instances of the generalization are clearly specified
4) Evidence that the hypothesis has not contaminated the data
5) Formulations alternative to the hypothesis are offered
6) The range of individuals and situations to which the hypothesis applies is made explicit

Davison & Lazarus (1994) also have listed some positive features of case studies:

a case study may cast doubt on a general theory
a case study may provide a valuable heuristic to subsequent and better controlled research
a case study may permit the investigation, although poorly contrlled, of rare but important phenomena
a case study can provide the opportunity to apply new principles and notions in entirely new ways
a case study, under circumstances, can provide enough experimenter control over an phenomen to furnish "scientifically acceotable" information.
a case study can assist in placing "meat" on the "theoretical skeleton"

There are also critical voices on psychoanalytic case studies we should not leave out:

a psa case study is an anecdote and works on narrative persuasion
a psa case study is not an archival report
a psa case study provides mostly an argument by authority
a psa case study leads to an inflation of the prevailing theory
a psa case study most have exhibits a total non-representativeness of sample
a psa case study most likely at best is a mixture of aestetic and clinical interest
a psa case study has most likely only literary and reportorial value

To be honest there are not many of such case studies documented. The Wallerstein (1986) final report on the 42 case studies from the Menninger Treatment Project approaches such stringent qualitative features. Another example is the Hampstead Child Psychoanalytic Index containing the complete analytic treatment records of over 140 cases (Sandler *et al*., 1962; Sandler *et al*, 1980).

Quantitative case studies are not an alternative to qualitative studies, as choices what to measure quantitatively requires qualitative decisions first. The advantage of quantification resides in the availability of statistical techniques which are helpful to reduce the complexity of observations. Variables to be measured have to be carefully specified and units of observations have to be defined.

Basically there are two ways of using the available material:

a) Replication by segmentation

b) Time series analysis

a) Replication by segmentation

The work of the Mount Zion Group (Weiss & Sampson, 1986) or of Luborsky on the Symptom-Context Method (1996) are good illustrations of the exprimental use of textual material. This approach has been also formalized as "the new research paradigm" by Rice and Greenberg (1984):

1) The therapeutic record is sampled and segmented into different episodes or events
2) The segments are selected on the basis of particular kinds of recurring events
3) A particular, measurable, dimension, assumed to be causally related to the recurring events is identified and measured
4) The hypothesis is formulated and tested concerning a possible association between the measures identified in (3) and the events noted in (2)

This approach creates almost limitless possibilities for testing psychoanalytic hypotheses; alas there are threats to the statistical validity due to a number of factors. Most often the samples sizes are too small to detect medium and small effects. Not always is the indepence of measurement safeguarded etc.

b) Time series analysis

The aforementioned strategy of segmentation allows to study assumed correlatins of processes that are conceived as being independent from the time in treatment they are occuring. If one wants

to study phenomena that are contingent of their position during treatment - as the process features of long-term psychoanalytic treatments extending over several hundreds of sessions are - one has to use time series analysis time. Time series analsis preserves all sequential dependencies in the series of events:

«A time series analysis is any form of measurement taken at rougly equal intervalls over a large number of occasions. The number of observations required for a time series is at least a hundred points. Psychoanalytic data this lend themselves well to study using this technique, whether sessions or weeks of treatment are adopted as uniuts of analysis. Several models of time series analsis are availale, each making different assumptions about the date and usinhg different algorithms to provide the final statistics» (Fonagy & Moran, 1993, p. 72).

Different methods of time-series sampling may be considered e.g. random samples in different variations or a typical selection of treatment sessions in which characteristics occur which are specific for a given research question. Unfortunately, there is no sampling theory for time-series from which methods for arriving at time-series samples might be derived; the existing attempts to formulate a psychoanalytic process theory are not yet precise enough in order to yield sampling criteria.

A very convincing example for the use of time series have been provided by Moran & Fonagy (1987) in their study on "psychoanalysis and brittle diabetes" and by Graff & Luborsky (1977) in their study on the relationship of transference and resistance[2].

Many authors like Donnellan (1978) have recommended "Single-subject research" in order to improve on basic issues in psychoanalytic theorizing, but the proof of the pudding will resides in providing convincing examples.

The German specimen case Amalia X

Let me now present our specimen case, Amalia X, that has served similar purposes among the German and Swiss[3] psychoanalytic research community.

Studying single cases in great details is promissing in many ways. It does help to bridge the gap between clinical wisdom and scientific approach. It also enables to keep qualitative and quantitative avenues in touch with one another.

Our leading idea in Ulm was to use descriptive data of different quality to examine clinical process hypotheses. Our methodological conception was inspired by Helen Sargent (1961)`s recommendations for the Topeka project consisting of a four level-approach; on each level different methods with appropriate material representing different levels of conceptualization have been applied (Kächele, Thomä & Schaumburg, 1975):

I. Clinical case study
II. Systematic clinical description
III. Guided clinical judgment procedure
IV. Linguistic and computer-assisted text analysis

This multi-level multi-method approach reflects our understanding that the tension between clinical meaningfulness and objectivation can not be solved by using one approach only. Up to

[2] Diary-based time series studies on various psychosomatic symptoms have been presented on migraine headache by Dalkvist *et al*. 1984) on urticaria by Brähler *et al*. (1994), on M. Crohn by Brosig *et al*. (1997), and on psychological predictors for irritiable bowel syndrome by Dancey *et al*. (1998).

[3] The group around B. Boothe (Zürich) has extensively studied the case Amalia X using the narrative analysis method JAKOB (Boothe, 2000).

now this approach has been applied to a total of four cases varying in amount of work performed in the different domains.

Today I familiarize you with the work performed on the patient called Amalia X which I would like you to consider as a true specimen case.

Why she? A women thirty years old, well educated she had suffered quite some years. Amalie X came to psychoanalysis because her low self-esteem had contributed to a neurotic depression in the last few years. Her entire life history since puberty and her social role as woman had suffered from the severe strain resulting from her hirsutism. Although it had been possible for her to hide her stigma - the virile growth of hair all over her body - from others, the cosmetic aids she had used had not raised her self-esteem or eliminated her extreme social insecurity. Her feeling of being stigmatized and her neurotic symptoms, which had already been manifest before puberty, strengthened each other in a vicious circle; scruples from compulsion neurosis and different symptoms of anxiety neurosis impeded her personal relationships and, most importantly, kept the patient from forming close, intimate heterosexual friendships...

Clinical experience justified the following assumptions. A virile stigma strengthens penis envy and reactivates oedipal conflicts. If the patient's wish to be a man had materialized, her hermaphroditic body scheme would have become free of conflict. The question "Am I a man or a woman?" would then have been answered; her insecurity regarding her identity, which was continously reinforced by her stigma, would have been eliminated; and self image and physical reality would then have been in agreement. It was impossible for her to maintain her unconscious phantasy, however, in view of physical reality. A virile stigma does not make a man of a woman. Regressive solutions such as reaching an inner security despite her masculine stigma by identifying herself with her mother revitalized the old mother-daughter conflicts and led to a variety of defensive processes. All of her affective and cognitive processes were marked by ambivalence, so that she had difficulty, for example, deciding between the different colors when shopping because she linked them with the qualities of masculine or feminine" (Thomä & Kächele, 1992, p. 79).

The decision to call her a specimen case also requires that systematic psychometric evaluations before and after treatment are available.

Before presenting two recent empirical studies I give you an idea of what has been achieved so far:

I. Clinical case study

In the second volume of our textbook on psychoanalytic therapy (Thomä & Kächele, 1992) the patient is discussed in five chapters.

II. Systematic clinical description

Based on a systematic time sample of the analysis (sessions 1-5, 26-30, 51-55 until the end of the analysis 513-517) two medical students under supervision have extracted systematic descriptions of important contents of the treatment. This report spells out for each blocks of five sessions the following topics: external circumstances, symptomatology, state of transference and countertransference, family relations, non-familiar relations, dreams, etc.

This account – about 100 pages - has been a most useful device for understanding the findings of more quantitative evaluations.

The resulting booklet can serve many purposes besides its being a valuable achievement in itself. It helps for an easy access to an orientation on the whole case, being more detailed and more systematic as a traditional case history which tends to be more novella-like whereas the systematic description record marks out the orderly progress of things. One can rearrange the qualitative data, concatenating all transference descriptions one after the other and by such gain a good view f.e. on the development of major transference issues (Kächele *et al.,* 1999):

Systematic description of Amalia X's transference themes

1-5: The analysis as confession
26-30: The analysis as an examination
51-55: The bad, cold mother
76-80: Submission and secret defiance
101-105: Searching her own rule
116-120: The disappointing father and the helpless daughter
151-155: the cold father and her desire for identification
176-180: Ambivalence in the father relationship
201-205: The father as seducer or judge of moral standards
226-230: Does he love me - or not ?
251-255: Even my father cannot change me into a boy
276-280: The Cindarella feeling
301-305: The poor girl and the rich king-
326-330: If you reject me I'll reject you
351-355: The powerless love to the mighty father and jealousy
376-380: Separation for not being deserted
401-405: Discovery of her capacity to criticize
426-430: I'm only second to my mother, first born are preferred
451-455: Hate for the giving therapist
476-480: The art of loving consists in tolerating love and hate
501-505: Be first in saying good-by
513-517: Departure-Symphony

It is not by chance that these descriptions remind one to titles of fairy tales. At any given point in treatment the relationship between patient and analyst is organized in a narrative pattern which clinicians are very apt to spot. Systematic clinical descriptions thus rely on the very capacity of narrative accounting but using the systematic sampling technique these accounts change in their nature. Systematic clinical description is a way to recount the treatment in a mixed mode. In order to introduce some objectivity to the narrative accounts based on verbatim records, we recommend two semi-professional readers (like students) with some understanding of what psychoanalysis is like; we then counter-check on their account using a more experienced clinician.

III. Guided clinical judgment procedure

Clinical description even performed by two or more observer keeps the nature of the data on a qualitative level. Level three works with guided clinical judgment procedures for specified conceptual dimensions like Luborsky did for transference; in this methodological mode various studies were performed:

Emotional insight *(Hohage, 1988)*
Change of self-esteem *(Neudert et al., 1987)*
Types of suffering *(Neudert & Hohage, 1988)*
Reaction to tape-recording *(Kächele et al., 1988)*
Changes of dreams *(Kächele et al., 1997; Leuzinger-Bohleber, 1989; Leuzinger-Bohleber & Kächele, 1990)*
Reaction to breaks *(Jiménez et al., 2006)*
Transference - Structural aspects (CCRT) *(Albani et al,. 2003)*
Allusions to the transference (PERT) *(Gill & Hofman, 1985)*

IV. Linguistic and computer-assisted text analysis

Discourse analysis:

Everyday discourse and psychoanalytic discourse *(Koerfer & Neumann, 1982)*
Action language *(Beermann, 1983)*
Metaphors *(Casonato & Kächele, 2007)*

Computer-assisted studies. The fourth level in our research model consists in supplementing the approach rating clinical concepts by introducing the methodology of computer-based textanalysis:

Verbal activity level *(Kächele, 1993)*
The analyst's vocabulary *(Kächele et al., 1999)*
Latent meaning structures *(Mergenthaler & Kächele, 1985)*
The emotional vocabulary *(Hölzer et al., 2006)*
Therapeutic cycles *(Mergenthaler & Kalmykova, 1997)*
Personal pronouns *(Schaumburg, 1980)*
Body concept *(Schors et al., 1982)*

Further steps are needed especially the task of integrating the many findings from the various studies.

Final Remarks

Research findings have to be replicated in order to prove their value. The core idea of having a specimen case allows not only testing hypotheses for single case, but allows testing the fruitfulness of methods. So far we are only sure about the definite effects of our investigations on our own psychoanalytic thinking and doing and those who are close to our work. Nothing has changed our psychoanalytic thinking and doing more than the public exposure to friendly critics and critical friends. We say this in order to encourage other psychoanalysts to open the privacy of their clinical work in the endeavor to improve clinical work by letting it scrutinize by others.

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