Horst Kächele (Ulm) & Juan Pablo Jimenez (Santiago)

Symptoms and contexts - some grateful thoughts on yet another methodological discovery[1]

Psychoanalysis has many faces; as a theory of mind, as a form of treatment with a variety of sub-forms of treatments derived from it and as a “Weltanschauung“ that provides a particular set of "quasi-religious" convictions.

The theory has received the attention of many, many critics, some of them less friendly like Eysenck´ (1952; 1961; 1985)[2]; others consistenly friendly - critical like Paul Kline, another British psychologist (1984). Kline´s very rich and thoughtful book on "Facts and Fantasy in Freudian Theory" (1972; 1981) demonstrates that only a careful piece by piece working through of the vast and rich experimental studies that have been performed on psychoanalytic hypotheses is adequate to sort the trash from the treasures.

Our Ulm study group has been impressed the phenomenon that such a richness exists in experimental studies on basic tenets of psychoanalytic theory - wrong or wright may be an issue (see Eysenck 1972; Kiener 1978). However the surprise resides in the fact that relatively small number of experimental studies ever been been performed on clinical-technical issues (Kächele et al. 1991). The first edition of the "Handbook" (Bergin u. Garfield 1971) contained a chapter entitled "Laboratory interview research as analogue to treatment“ by Heller (1971) that in the ensuing editions was absent .

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[2] with respect to effectiveness Eysenck´s statements have been commented upon by Erwin (1980) and Luborsky (1954)

> " Throughout history , the primary approach to the systematic development of knowledge has involved the careful observation and recording of naturally occuring events.....More recently, when the complexity of natural phenomena has defied understanding through direct observation, an alternative research strategy has come into prominence involving the building and testing of laboratory models that are abstraction or analogies of natural events" (Heller 1971, p.126).

One of the first example - at least for us - were Hans Strupp´s experimental studies on the therapist´s contribution to the treatment process (1962; 1960). However also among the various examples discussed in the chapter one could encounter at least one experimental procedure directed to a centerpiece of psychoanalytic technique:

> "Perhaps it is a commentary on the nature of the field that were are few experimental studies of free association.Those studies that are reported in the literature are more concerned with the personality of the subject than with interpersonal and situational determinants of behaviour. This should not be too surprising, since the free association is specifically designed to keep situational pressure at a minimum so that patiemt´s concentration on internal ideation, affect, and sensations will be maximed" (Heller, 1971, p.139).

The studies by Bordin (1966a; 1966b) and Kaplan (1966) suggested that to be good candidates for a free-association therapy, subjects should be persons whose personality structure is fairly well balanced and who have easy access to personal concerns and anxiety evoking-experience. Heller´s comment on these findings are that it is the rare therapist who is fortunate to have patients of this ideal type.

We felt intrigued by the demonstrated feasability of experimenting with this free-association analogue technique performing an even more refined experiment (Hölzer et al. 1988). At the second European SPR conference in Louvain we reported 1987 on aspects of "Resistance and Transference as two

main constituents in an experimental analogue of free association (Heckmann et al. 1987).

The question may be asked why the psychoanalytic treatment worlds have been so reluctant to develop not more of such approaches ? What is it that makes psychodynamic treatment research less amenable to experimental investigation ? It may be evident that we have constructed a stage for a pure rhetoric reason: the whole issue of experimental versus non-experimental, extra-clinical versus clinical approaches may have been a wrong alternative.

It was the philosopher Grünbaum (1982; 1984) that had focused on the issue most prominently that had been bothering the scientific psychoanalytic community since long (Thomä & Kächele 1975): The issues clearly is on what kind of inferences can be safely made from therapy sessions. Grünbaum claimed that

> "psychotherapy sessions cannot be used "probatively", meaning that data for sessions cannot be used to prove any hypothesis but only to suggest hypothesis. In the style of a logician, Grünbaum has decided that because the data of psychotherapy sessions can be influenced by the therapist, then nothing can be proved from psychotherapy dsessions; what is found in sessions may be entirely a product of the therapist´s influence" (Luborsky et al. 1993, p.XXIII).

For most people this might have been just one of these academic discussion - bullshit for some, words for wisdom for others - however at this point of my presentation I have to remind my readers that in october 1970 when I started my career as psychotherapy researcher, I was assigned the task to develop a methodology for studying a long term psychoanalytic process of 500 sessions of a completely tape-recorded analytic treatment. Then these philosophical issues were truely menacing the start of my professional career !

With no prior research experience - my doctoral dissertation had been very hermeneutic (Kächele 1970) - the best thing I could do to was to study the then available literature. My first book was the Gottschalk & Auerbach´s compendium (1966)); I then came across Chassan´s (1970) hints on methodology and, then hard to avoid, Lester Luborsky & Arthur Auerbach´s (1969) work on symptom context method. Together with a colleague from the Ulm psychosomatic department, Othmar Schonecke, we felt excited about this methodological breakthrough, and soon tried out that new method. The psychosomatic study group wanted to find out whether there were contextual conditions for rise and fall of blood pressure (Adler et al. 1976), we - on the way of developing our textual based worlds - , we studied the vocabulary of our patient´s fulminant anxiety neurosis.

The patient under scrutiny, Christian Y, has been described in our textbook (Thomä u. Kächele 1994). At that time computers had not yet invaded psychotherapy research; the first adventurers like Hartvig Dahl and Donald Spence barely had begun their path-tracking work (Dahl 1974; Spence 1969). In order to manage the sheer amount of textual material we decided to study the occurence of nouns as representations of what is talked about and my first secretary had to pick out and list the occuring nouns of out quite a number of sessions.
The leading idea of this step was to investigate the textual correlates of the noun ANXIETY. In applying the symptom-context method we followed the instruction to pair text samples with and without the symptom from the same session and look for systematic differences.

For a first study then we selected eight sessions randomly from the time span between session 60 and 120 (sessions 65, 67, 70, 82, 90, 101, 111). We

applied the following criterium for selecting the symptom sample: whenever the noun ANXIETY occureed and the statement of the patient was more then ten lines of text we included the specimen; for each symptom sample we choose from the same session a control sample without the noun ANXIETY occuring of approximately the same length.

Results:

The eight symptom samples contained 135 nouns, of which 127 could be classified in a already developed semantic, case specific, category system; thus the coding was quite high (94 %). The eight control samples contained 127 nouns of which 116 could be classified (95%). Ot of ten categories two categories discriminated the the kinds of samples:

category	**SYMPTOM %**	**CONTROL %**	**p value**
Treatment Conditions	4,74	13,79	0.02
Bodily Complaints	11,86	3,44	0.02
Negative Sensations	8,66	7,75	> 0.05 - < 0.10

The result looked fine; however we felt that contextual properties might emerge more specific within more narrow defined periods of treatment.

So in a second attempt we took ten consecutive sessions (session 139 - 148) comparing ten ANXIETY samples with 18 control samples.

The results looked somewhat more specific:

Category	**SYMPTOM %**	**CONTROL %**	**p value**
People	1, 09	6,56	< 0.01

Bodily Complaints	13,14	2,31	< 0.01
Thought Processes	12, 08	26,64	< 0.001
Treatment Conditions	12,63	6,18	< 0.02
N Nouns	182	259	
N Nouns coded	92, 85 %	97, 84%	

So for this more narrowly defined textual material the presence of the noun ANXIETY in this patient´s statements connected again the category BODILY COMPLAINTS with the presence of ANXIETY feeding into the notion that the semantic space of his anxiety were centered around his body; talking about TREATMENT CONDITIONS was also high for ANXIETY whereas the absence of other people (like family members) and the low level of THOUGHT PROCESSES was prominent.

What did we learn from this small piece of research using Lester Luborsky´s ingenious tool ? We learned that this is a cute experimental method of investigating functional correlations within a given subject. Similar to Julius Laffal´s (1976) analysis of the contextual correlates of Schreber´s use of the words “sun“ and “moon“, we had found a way to empirically describe the meaning space of a core concept of this treatment.
Our next steps leds us away from the experimental track and we embarked on the longitudinal description of the treatment process (Kächele et al. 1975).

In a later study however, we came back to the idea of using a symptom-context approach (Jimenez et al. 1998).
The focus of this study was a detailed examination of the evolution of the reaction to breaks during the analytic treatment of our second research case.

Amalia, the patient was about 35 years old when she began her analysis. She had suffered since puberty from hirsutism – i.e., substantial abnormal growth of body hair like that of a man. She lived by herself and felt very alone, but had withdrawn from social contact because she was convinced that other people perceived her hirsutism as a shameful stigma. In public places, she was afraid of being observed and rejected, and she had developed a clinical erythrophobia. Amalia continued to feel very close to her parents, with whom she spent weekends and holidays. At the same time, she felt constrained by her mother's overprotectiveness. She had never had sexual relations, and attributed this to her hirsutism and her strict religiousness, which she felt to be responsible for her anxiety and obsessional-compulsive symptoms. These problems had triggered a depressive reaction in Amalia, which had led her to seek help in psychoanalysis.

Amalia's psychoanalytic treatment was successful. The following comment is taken from the report on the results of the analysis and the changes achieved in it (Thomä & Kächele 1988, p. 519): "The psychometric data gathered for evaluation of results at the beginning and end of the treatment and also in a catamnesis two years later confirm the clinical evaluation of the patient's analyst that (Amalia's) treatment was successful."

Amalia's psychoanalysis comprised 531 sessions extending over nearly five years. Of the 531 actual sessions, only 517 were recorded on tape, and, of these, 212 had been (at the time of this study) transcribed according to the rules of the *Ulm Textbank* (Mergenthaler u. Stinson 1990). The study was based on the 212 transcribed sessions fairly evenly distributed over the treatment.

The *hypothesis* of that study was that the sessions that occur before a clinically significant breaks in the treatment would contain the theme of loss-separation. Hence the first requirement was to define formally what we meant by a break. Secondly, we had to find some way of showing that the topic of loss-separation appears predominantly in the transcripts of the sessions related in time to a break, and not arbitrarily in any session within the sample. So in this way we again followed the idea of testing within a treatment process a symptomatic event - feelings of loss and separation - controlled by sessions not connected to a break in the treatment.

For an initial definition of a break in the treatment, we adopted operational empirical criteria. On the basis of the attendance card, we draw up a histogram of the treatment, which we shall analyse below.

At a second stage we established the correlation between *break sessions* and *separation sessions,* because not all *break sessions* necessarily show a significant increase in the incidence of the loss-separation theme. If a correlation is found, we shall check what kind of *break session* may also be regarded as a *separation session*.

For a substantial description of the *break sessions,* we used the *Ulm Anxiety Topic Dictionary* (ATD, (Speidel 1979)), which is a computer-assisted instrument for content analysis. The ATD comprises four thematic categories, *guilt*, *shame*, *castration* and *separation*, operationalized as lists of individual words each presumed to represent one of these categories. A computer program is used to analyze the verbal content of the analyst's and the patient's texts, taken separately, for each session in the analysis, the result being values reflecting the relative frequency of text words belonging to each of the thematic categories. This procedure yields values for the categories of guilt, shame, castration and separation, for the patient and the analyst respectively, a comparison of which from session to session gives an approximate idea of the extent to which these themes were touched upon in each session. The dictionary was used in this study only as a screening instrument for the detection of themes and not to detect specific affects or anxieties[3].

[3] To understand this point we should consider that 90% of the values found in the sessions with this instrument range, in the case of our patient, between 0.1% and 1.2% for the different categories. For example, if in a given session ATD yields a value of 0,75% for the category *separation-patient*, it means that 0.75% of the words used by the patient in that session – an average of *22* words in 2933 – belongs to the semantic field of separation. It is therefore clear that values are mere indicators of spoken themes.

By this step we hoped to identify the sessions relevant from the point of view of the reaction to breaks – i.e., sessions which show the impact of the session-free intervals on the analyst-patient dyad, as reflected in the four themes defined by the dictionary.

Results

Stage 1: Formal definition of a break

We defined a break in the treatment by operational empirical criteria. The histogram reproduced in fig. 1 shows the following: Between the 531 actual sessions there were 530 session-free intervals, whose duration we measure in days (for instance, there is an interval of 1 day between a Monday session and the next Tuesday session). The histogram revealed five blocks of session-free intervals.

Block 1 represents the shortest intervals and reflects the "ideal" timing (in this case, three times a week). These shortest intervals were defined as *non-breaks*.. Block 2 contains the weekend breaks. Block 3 comprises short breaks due to illness on the part of the patient or absences of the analyst for attendance at congresses or other reasons. Block 4 comprises breaks for Christmas and Easter holidays. Finally, Block 5 represents three summer holidays taken by the patient and the analyst at the same time, two breaks due to non-simultaneous summer holidays, and two prolonged absences by the analyst for trips abroad.

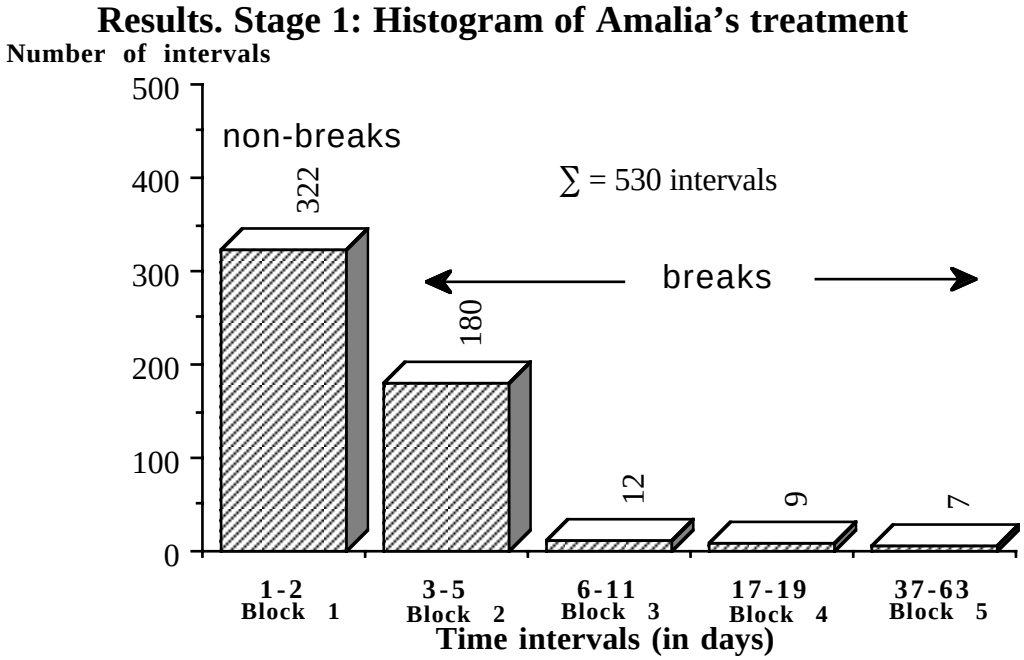

Fig. 1

On the basis of these blocks of breaks, it was possible to define which sessions correlated with which break and the type of correlation with the relevant break (whether before or after, and at what distance).

Stage 2: Identification of separation sessions

According to our hypothesis, the loss-separation topic had to appear in sessions correlated in time with the breaks *(break session)*. [4]

To investigate the correlation between *break sessions* and *separation sessions*, we divided the sessions of the sample into groups in accordance with their correlation with the breaks: according to the duration of the break,

[4] The relationship between the loss-separation model in the verbal records and the *break sessions* is not necessarily absolute and automatic. Theoretically, it is also possible for the separation theme to occur in sessions which are not associated with a real external break, such as those which are centered on an internal separation or on a certain distancing from the analyst during a particular session. On the other hand, breaks can occur which do not provoke in the patient a verbal reaction of separation which shows in the records; there my be a non-verbal reaction whcih will obviously not appear in the verbal records. However, it is most likely that if the separation theme does appear in the verbal content of the sessions, it would do so in sessions associated with breaks.

whether they preceded or followed the break, and the number of sessions between the relevant session and the break. We compare the different groups formed in this way with a group of *non-break* sessions (N = 86). This group of 86 *non-break* sessions proved to be evenly distributed throughout the treatment.

The comparisons made between the different groups of *break sessions* and the group of *non-break sessions* revealed significant differences (t-test: $p < 0.05$) only in the group of sessions immediately before the longest breaks. In this group we found significantly higher values for the variable *separation-patient* and significantly lower values for the variable *shame-therapist*.

These results enabled us to define operationally a *separation session* as one with a high value for *separation-patient* and a low value for *shame-therapist*. This operational definition specified our construct *separation session*. The importance of these two variables was confirmed by additional statistical techniques such as discrimination analysis.

The question which naturally then arose was whether this construct might not also be detected in some individual sessions not associated with the longest breaks – e.g., in sessions before or after breaks that were not so long, or in weekend sessions or, finally, in *non-break sessions*. To answer this question, an artificial variable, called technically a *canonical variable*, was formed on the basis of the construct *separation session* (high *separation-patient*, low *shame-therapist*). Using the computer, this canonical variable was required to perform the classification function of rearranging all the sessions in the sample (N = 212) in a series from plus to minus – i.e., from the sessions that most resembled the construct *separation session* to those that were least like it.

The next step was to compare the extreme groups of the sessions thus rearranged with the actual dates on which they took place. The result of this comparison again confirmed the hypothesis that the separation sessions tended

to be grouped around the breaks: of the first 20 sessions arranged in accordance with the canonical variable – i.e., the sessions most similar to the separation construct – 19 corresponded to sessions directly correlated with a break or to the period of termination of the analysis, while only one was a *non-break session.* The majority of these 19 break sessions preceded a prolonged break. Examination of the group of 20 sessions at the opposite extreme – i.e., those at the non-separation end – showed that the majority of these were non-break sessions and the remainder weekend sessions.

On the basis of these results it could be asserted that the separation construct was *unstable* but *consistent.* This means that it did not always appear in the case of a real separation between analyst and patient – i.e., a break in the continuity of the treatment – but that, when it does appear, its probability of appearance was greatest when the relevant session inmediately preceded a prolonged break.

The separation construct so far suggests that *in this treatment – i.e., with this analyst-patient dyad – the reaction to breaks appeared to be correlated with themes of separation and shame.* More precisely, the analyst mentions the theme of shame less in the *separation sessions* than in the treatment in general[5] If we consider only the 20 *separation sessions* in the last third of the analysis – specifically, from session 356 onwards – the analyst ceases to speak about shame and the variable *shame-therapist* is practically zero. This might mean that towards the end of the treatment the analyst stopped relating the themes of separation and shame.

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[5] It is highly likely that the separation content may lead to a general working model and that the shame aspect points to a dyadic-specific content. If so, this is merely a trivial fact, namely that Amalia experiencies separations within the framework of her personal neurosis where shame plays a special psychopathological and psychodynamic role (given her hirsutism and erythrophobia). We can think of many possible combinations. For example, the separation anxiety can be defended by sexual shame anxiety; or the patient may feel depressive shame vis a vis her analyst because of her painful feelings of isolation and abandonment; on the other hand, separation from the analyst by a break can be experienced by the patient as humiliation and as a sign of shameful dependence, etc., and all this can develop in the course of analysis in different ways.

There is much more meat to this study as you might surmise. The second part of this study - that will be J P Jimenez doctoral dissertation- also includes the patient´s CCRT in the break sessions comparing them to other non-break sessions; however these results will be presented at the fifth latin-american SPR meeting in september 2000 in Gramado/Brazil.

Coda

Inventigating single cases has a long tradition in some quarters of psychotherapy research (Shapiro, 1966; Chassan, 1970, 1979); however the social and prestige and financial rewarding has never been overwhelming. More specific what Lester Luborosky has brought to the field - the symptom-context method (Luborsky 1953; Luborsky 1964; Luborsky 1967; Luborsky 1970; Luborsky 1995; Luborsky 1996; Luborsky & Auerbach 1969; Luborsky & Kächele 1999; Luborsky & Mintz 1974; Luborsky et al. 1984) has recently been formalized as " the new research paradigm" in an excellent volume by Rice and Greenberg (1984). There are limitiations to this method as has discussed by Fonagy u. Moran (1993); too. not surprising - limitiations should have the incentive to get us to work on better methods.

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