Hölzer M, Scheytt N, Pokorny D, Kächele H (1990) Das "Affektive Diktionär". Ein Vergleich des emotionalen Vokabulars von Student und Stürmer. *PPmP Psychother Psychosom med Psychol DiskJournal 1: 1*

M Hölzer, N Scheytt, D Pokorny & H Kächele, Ulm

Emotional vocabulary in psychodynamic and cognitive-behavioral treatment: A comparison

1. Problem

Since two years we are investigating exchange processes in psychotherapy on the level of the speakers' vocabularies. Identifying but the particles / components of speech by computer-aided text analysis limits the range of possible statements/ conclusions, as investigation of lexical items still is inevitably tied to a neglect of contextual information. However it comprises the advantage of a technicality which may balance the poverty of the semantics involved [Mergenthaler, 1988].The rather mechanical process of analysis alleviates/ furthers/ opens a host of various procedures; the variables more often than not are of a formal nature staying a far cry from understanding their functional relevance.Using the transcripts from the Penn Psychotherapy Study [Luborsky, 1988b] we collected first experiences with the methods for analyzing vocabularies of two speakers differentiating among shared and non-shared vocabulary. In this material we already found that successful therapists' (these are therapists of successful patients') tend to focus on the emotional parts of the patients' vocabulary [Hölzer, 1987]. From this we concluded that the detailed investigation of sub-vocabularies would be more relevant than the study of the total scores [Hölzer, 1988] and embarked on studying the "emotional vocabulary" or as we call it now the "affective dictionary" (AD). Working close to the patient's emotions as a therapeutic strategy has been identified in the field by quite a few [Safran, 1988]. Within the PEP-Project Hans Ruedi Ambühl's work on "therapeutic heuristics" includes the strategy of "work on emotion". It is characterized by the following items:

Table 1

Naming and thus signifying of emotional states has a succinct position in research on emotions. Moser [Moser, 1983] defines an emotion als an "experienced and / or conscious affective coding of a situation with more or less accentuated self- and objectrepresenations (p. 4). In a similar vein Krause

introduces the labeling of feeling states as a separate component in a taxonomy of the internal structure of affects [Krause, 198x].

Table 2

Labeling and evaluation of perceptions, of the triggering situation as well as a categorization to self or objectrealm are the features that are attributed to the verbalized represenation of emotions.
Statements that are based on the investigation of the emotional vocabulary pertain first of all only to the question which emotion words of the speakers are used when. The context in which these emotion words are situated, the meaninhg ofd the sentence in which they appear, is not highlighted. Conclusions as to the affective states they might represent are not covered by this approach.

2. The affective dictionary (AD)
In the frame of the PEP project our approach compares both therapies from the perspective of the emotional vocabulary used by the speakers. In a first step all words were identified that in our opinion belong to the emotional field.

Table 3 preparing the data

In a second step a theory derived category system was used to arrive at a classification of these words into distinct categories.For this procedure we relied on Hartvig Dahl's classification tree - derived from de Rivera's " decision theory of emotions". Three dichotomous steps lead to eight categories for classification.

Table 4 Dahl's decision tree

The first decision relates to the question whether the labeled affective state refers to an object or whether it describes a self-related state. The second step decides on positive or negative aspects of the feeling state. The third step classifies the object emotions in terms of directionality whereas self emotions are judged on passiv or active dimension. The classification of the emotional vocabulary was performed by two of us (MH & NS), workinbg independently. Reliability of coding reached 70%, in a second step the classiciation of differently judged words was resolved by consensus of the two raters.A critical issue relates to the role of verbs as emotion carrying words. Our experience shows that verbs show a much higher contextual dependency with regard to their emotional significance. This lowers the valididy of the categories; we therefore have developed two versions of the affective dictionary, one with and one without the verbs as entries

table 5: The Affective Dictionary Ulm ADU

The dictionary is our tool that analyzes the dialogue, separating speakers and sessions. The programme checks the verbal exchange for the entiry words, marks them and computes a total score for each of the category for each session (or whatever the summarizing unit of analysis is defined).

Table 6 : the ADU coding in the the text

When comparing two treatments the structure of the produced data can be represented by a three-dimensional continency table

table 7:

3. The comparison of the two PEP-cases
From our previous investigations we already know that the size of any vocabulary is highly depending on the verbal activity. To compare vocabularies the assessment of verbal activity is necessary.

table 8: verbal activity, differential vocabularies, AL (?)

Verbal activity turns out to be fairly different in both therapies. The Bernese patient is fairly passive compared to the Ulm patient when both are related to their therapists activity. Factors of technique as wells as personality style and clinical experience may contribute to these differences. The behavioral oriented Berrnese technique leads to quite a few comprehensive/ detailed/ long instructions from the therapist whereas the Ulm therapist's verbal activity fits well to the characteristic active listening, still evenly participating stance of psychoanalytic therapists.

table 9: verbal activity in the Ulm case

This is confirmed by a low variability of the verbal activity of the Ulm therapist with a mean of 2010 words per session (45 min duration). The patients productions comprise a mean of 4443 words per session, some variations, but as well fairly equal over the course of treatment. Organizing the verbal production of the patient in a ranger shows that there is a tendeny to lower levels in session before separation. Hour 14 is the last before a longer break and hour 29 is the very last session of this short treatment.

table 10: verbal activity in the Berne case

The Bernese therapist produces a mean score of 2700 words; in 13 out of 28 sessions his verbal activity is larger than that of his patients who displays a mean verbal activity of 2800 words.(These figures could be compared to other data of our long experience with verbal activity analyses [see Kächele, 1982] .

Presupposing that the size of vocabulary - besides other external objectives - allows a fair estimation of the verbal creativity [Schoppe, 1900] , we may draw the following conclusions from our results. The Bernese case disposes of a smaller vocabulary, the Ulm case is much more diversified. The therapists' vocabularies may reflect an adaption to the different verbal capacities of their patients.
Focusing now on the special emotional vocabularies of both speakers as they appear distributed in the eight Dahl categories we may come to the following conclusions:

table 11 emotional vocabularies

In the Ulm case, quantitatively more labels, more emotions words are used as in the Berne case. Qualitatively there are also more different entries in the affective dictionary. Both therapists use more emotrional words than their patients

table 12. comparison Ulm- Berne

A category-based comparison on both patient and therapist produces the following result: The Ulm case is a therapy on object emotions, the Berne case focuses more on self emotions. This difference is statistically highly significant ($p = < o.o1$). This difference can be reproduced by a cluster analysis of the four emotional vocabularies. The speaker conversing with one another in one therapy show much more similarity as the speakers across the therapies. Impressive are the different cluster-analytic distances within the therapies.

table 13: cluster analysis

The Ulm speakers are fairly close whereas the Berne speakers are fairly distant from one another. For a lack of data on other dyads it is yet hard to interpret the direction of judging these differences. Investigating these differences on the basis of the categories it is obvious that in the Berne case especially the patient's vocabulary exhibits the prevalence of the self emotions; the therapist's

vocabulary follows this lead, but is more balcned between object and self emotions.

table 14: affective dictionary in the Berne case

The Ulm case shows higher values for the therapist in the categories 1 (affection) and 3 (satisfaction), whereas the patient exhibits higheler levels in the categories 4 (joy) and 5 (anger)

table 15 affective dictionary in the Ulm case

One advantages of the Ulm textbank instrument is demonstrated by the circumstance that we are able to compare the Ulm therapist's category use in this case with his mean lexical choice behavior in other therapeutic settings.

table 16: affective dictionary of the Ulm therapist in initial interviews with male patients (N = 17)

Compared to the mean values for 17 initial interviews with male patients, the Ulm therapist in this case prefers the categories 1 and 2 by which he seems to identify wishes for positive object relations. This case specific deviation from his norm (statistically spoken) reflects the focus of the treatment as described in the therapist's initial assessment. There the therapist interprets the symptom of repetitive turning around as a rejected longing for gratifying early object relations.

table 17: course of self/ object emotions in the Bern case

The total amount of verbalized emotions in the berne case over the course of treatment shows an initial decrease and from hour 6 on a rise. Characteristically for the Berne case are phases of very high affect synchronization f. e. hours 1- 8 or in the final hours that are followed by phases of clearly less synchronized affect verbalization. It may be idele to speculate but we would think these phenomena are worth further detailed study.The relation of self and object emotions points out that the increase in self emotion over the course of treatment in the therapist vocabulary may reflect a therapeutic strategy.

table 18: course of self/ object emotion in the Ulm case

This could help to understand why in the Ulm case we find an opposite course: In correspondance with psychodynamic treatment considerations where

subjective states of dysphoria have to be translated into object-related affects we find high self emotions in the therapists vocabulary at the beginning and than declining corresponding to an increase in object related emotions.These trends are more distinct in the therapists' vocabularies, the patients' tend to follow this but it clearly cannot be answered from a correlational approach.

What one has to do to overcome this state of our knowledge on these two cases, is to resize our microscope and look for more details in the verbal dialogue.