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ABSTRACT

This paper, presented at the April 1976 meeting of the Eastern Psychological Association, reports part of an ongoing study of psychiatric interviews at Hahnemann Medical College and Hospital in Philadelphia. Faculty from the Department of Mental Health Sciences are videotaped in initial evaluative interviews with clients who volunteer from the psychiatric facilities of Hahnemann. Client and therapist fill out questionnaires on their experiences of the sessions, and clients are given psychological tests. In future stages of the project, these will be correlated with movement assessments. The present paper deals with observer and repeat reliability on parts of the extensive inventory of patients' and therapists' body patterns. The Individual Movement Patterns Inventory used deals with individual style assessment, pathological features of movement, sex-role stereotypic nonverbal behaviors, interpersonal variables, and items believed to relate to cultural differences. Initial results suggest that individuals have consistent movement patterns over time, and those can be reliably assessed by trained observers. Therapist expressive movement patterns are focussed on, with descriptive examples of individual differences presented. The paper concludes with therapist role-specific nonverbal patterns, preliminary observations of patterns of eye contact, facial expression, gesturing and interacting nonverbally which appear related to the therapy context. (Author/KS)

PATTERNS OF PSYCHOTHERAPIST NONVERBAL BEHAVIOR

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Introduction

In the current flourish of nonverbal communication research, attention to analysis of individual differences in body movement is minimal. The stress now is on interpersonal, developmental and cultural aspects of body language. Historically the question of whether individuals have unique and defineable movement styles has been treated in just a few isolated works. Wilhelm Reich (1949) presented vivid clinical descriptions of his patients' nonverbal styles. Allport and Vernon demonstrated in a rigorous experimental study in 1933 that individuals have characteristic motor styles. Later Deutsch (1947) and Mahl (1968) would observe patients actions during psychotherapy and correlate them with personality dynamics. And in 1971 an English work by Marion North showed how individual movement patterns of children could be assessed.

Curiously we accept that everyone has his own signature, and we are not surprised when someone comes up with voice-prints which are as individually distinctive as fingerprints. Yet the idea that individuals move distinctively is little attended to in research, and it has not been established that ones movement style--that in his nonverbal behavior which persists across time and context--can be reliably determined from direct observation without the instrumentation and experimental manipulations Allport and Vernon employed.

The assessment of individual nonverbal styles has obvious

relevance to psychotherapy research. Of course Reich, Deutsch, and Mahl were looking at the patients' behavior. Equally relevant to the therapy process is the question of how the therapist moves. Does he or she have a distinctive nonverbal style seen from session to session. Can it be reliably described from films or videotapes of the sessions, and can it be distinguished from other aspects of nonverbal style such as how the individual reflects his sex, age, status, and cultural background.

Procedure

This is a report of part of an ongoing study of psychiatric interviews videotaped at Hahnemann Medical College and Hospital in Philadelphia. The study involves taping faculty from the Department of Mental Health Sciences in initial evaluative interviews with clients who have volunteered from one of the psychiatric facilities of Hahnemann. Therapists may see the same patient three times or a different patient each time. After each session patient and therapist fill out a therapy session questionnaire which details their experience of the session and of each other. Patients are also given a Minnesota Multiphasic Personality Inventory and Draw-a-Person test and are interviewed for background and psychiatric history information not covered during the taped interviews. Patients and therapists may see the tapes, and patients may receive feedback on the study and the tests from their clinic therapists if they wish.

Two movement observers*with over 10 years of movement observation experience then studied the tapes without sound, each for up to 20 hours. We use a 20-page movement inventory I have developed from past research. Called the Individual Movement Patterns Inventory, , it has five different sections or scales: one for individual style

*Movement analyst Jo Floyd's contribution is gratefully acknowledged.

assessment, one for pathological features of movement, one on sex role stereotypic nonverbal behaviors, a fourth dealing with interpersonal variables such as patterns of synchrony and echoing of actions between the pair, and a fifth section containing items believed to relate to cultural differences. Time doesn't permit explaining the development of this ambitious inventory. However it represents a converging of two areas of my experience: the adaptation of the terminology of movement or dance notation systems to psychotherapy research and the conclusions I have come to from a study of the nonverbal communication literature that when researchers report correlations between movement patterns and various behavioral phenomenon, what they actually attend to of the nonverbal behavior is critical. That is, different aspects of movement appear to correlate more powerfully with different psychological and cultural dimensions and any one sample of nonverbal behaviors simultaneously reflects diverse phenomena such as aspects of ones personality, social position, sex, age, cultural identity and relationship to others one is with (Davis, 1972,1975).

The Inventory is constructed on this notion. To give an example, the repertoire of ones positions appears individually distinctive and this is listed in the individual scale. The relative degree of coherence and organization of weight shifts as one gets into a position may be a relevant feature for discriminating psychopathology, and this is one of 46 items in the diagnostic scale (Davis, 1970). The relative width of the legs and arms in a position may discriminate males from females (Fortier, 1973) and so this is one of 37 items of the sex role scale. The degree to which the trunk is articulated within position shifts has been related to cultural differences (Lomax, Bartenieff and Paulay, 1968); such an item is

in ded in the ethnic scale. Finally various relationships between th st and patient positions according to Scheflen (1964) appear to reflect variations in rapport and status and such items are included in the interpersonal scale. I have tried to indicate in a nutshell how different aspects of the same variable such as "position" or "position shifts" appear to correlate with different levels. Each Inventory section is composed of different items or different aspects of the same general variables. Now to complete the brief description of the project.

It is a project first begun at the Roosevelt Hospital where we collected videotapes of 11 different patients and now at Hahnemann where so far we have added 20 more tapes. The study involves a number of different phases such as correlating the patient's movement patterns with the MMPI, and correlating the interpersonal scale with the patient and therapist perceptions as given in the therapy session questionnaire. For tonight I will discuss only

1) observer and repeat reliability on certain items of the individual scale of the Inventory and

2) some tentative observations about therapist nonverbal behavior, how therapy styles can be defined, and how as a group they display nonverbal patterns apparently specific to the role of therapist.

So far 20 inventories out of a possible 49 have been completed by two observers. The Inventory is filled out for both patient and therapist the same way, and I have included both patient and therapist movement assessments in the examination of observer and repeat reliability. For the observer reliability sample we have ten therapist pairs (with three therapists observed twice by each observer) and eight patient pairs (with one patient done twice by each observer). In the total sample of 31 tapes there are seven therapists

we can study because individual movement assessments of the Roosevelt therapists were not to be done according to the original design and eighteen patients (of whom only four were seen more than once because of the great difficulty in obtaining patient volunteers for an extended commitment). In spite of the sample limitations, there is sufficient data to examine reliability of specific parts of the Inventory.

The two observers viewed the tapes separately and did not discuss them until they had completed their observations. They each spent about 8 to 10 hours per Inventory. The order they viewed the tapes was not random but efforts were made to mix the sequence as much as possible. Therapists had been instructed to conduct interviews as they might ordinarily do and so session length varied, but none were longer than 60 minutes, the average being about 45 minutes. The ratings on the Inventory are based on general estimation of the presence and frequency of a particular detail of movement relative to the entire session.

For this report observer and repeat reliability were determined for the following movement categories:

1) general ratings of degree of mobility, integration, vitality, spatial clarity, and overall complexity of the individual's movement, each rated on a scale from 1 to 7. These general terms actually have very specific definitions. For example, "mobility" refers to the degree of active movement of various body parts and areas. It does not refer to how active one is. A therapist, for example, can be relatively still for long periods of a session and yet when he does move, he displays varying degrees of body mobility. Another example is vitality, a term which refers here to the relative degree of intensityor rhythmic variation of what movement there is, according to criteria carefully worked out and shared by the observers.

2) the second item compared is the predominant posture or body attitude of an individual as it is described in terms of spatial stress, areas of muscle tension, articulation of the trunk and so on. This item is really general carriage or stance, and may be distinguised from the next item, ones repertoire of positions. Generally there seems to be a characteristic or predominant body attitude which persists through different positions.

3) positions are defined here as the arrangements of limbs and the various tilts and leans of the trunk maintained at least for thirty seconds. Both body attitude and position are open-ended items described in words by the observer. Assessment of agreement was done by determining the ratio of hits to hits plus misses, e.g. the number or positions cited in two separate observations over the number cited both times plus the number of positions not occurring both times.

4) the fourth item involves ratings of which spatial directions are stressed in ones movement, i.e. to what degree are the spatial directions of forward and backward, upward and downward and out to the side and across the side stressed. Observers rated these on a scale from 0 to 3, thus obtaining a small six-variable profile of the predominant spatial dimensions of ones movement.

Repeat reliability was assessed for the same items usually using the first and second session of a series, and only the inventories of the principal investigator. It includes a sample of nine repeated pairs of observations of an individual involving six therapist and three patient pairs. Because of scheduling and taping variations, the sessions are not all the same time interval apart, but the average interval is two weeks.

Results

Observer reliability for the General ratings of mobility, integration, vitality, spatial clarity, and overall complexity was found to be highly significant. The correlation coefficient r is .618 for the 90 separate ratings (i.e. 18 individual assessments, 5 ratings each). A t of 7.38 is highly significant beyond the .001

level. Repeat reliability also yields a highly significant t of 5.57 and an r of .648. The correlation coefficient for the Spatial Directions category is .290 which is significant at the .005 level, and a repeat reliability of .444 which is also highly significant.

We had difficulty with the body attitude category. As it turned out each observer had such a different language for describing the postures and their observations varied so in degree of detail that consistency between observers could not really be assessed. However it does appear to be a valuable category and will be revised so that the observer must rate various carefully defined aspects of the posture systematically.

The position category appears to be an excellent discriminator of individual differences. Here observers were to list the four most common positions i.e. those maintained for the longest amount of time. Of 17 pairs completed by two observers, the average success ratio (i.e. both observers noting the same position over the number of hits plus misses) equals .668. Nine pairs of repeated observations of the same individuals from one session to another yielded an average success ratio of .439. The appropriate test of significance for these observations was hard to find given that there is a theoretically infinite number of positions an observer could note. However the preliminary analysis suggests that individuals do indeed have a consistent repertoire of positions and this is one of the easiest details to observe. We are currently pursuing more rigorous statistical assessment of this.

For this first report on the Inventory's reliability we have chosen a few major categories and examined them individually. The initial results are encouraging. Observer and repeat reliability are greatly neglected in nonverbal research. We must do much more

of course, but we are finding that least with highly trained observers it is possible to obtain agreement on rather difficult assessments of the formal characteristics of ones body movement. And such assessments can be done on any sample of naturalistic behavior which gives a constant head-to-toe view of the subjects such as we use with our two-camera, split-screen videotapes.

Individual Therapist Styles

So far I have presented the observations in a rather piecemeal way, but of course how one puts it altogether in movement patterns is ones true nonverbal signature and we are working on how to systematically and reliably assess this patterning. Perhaps it would help to visualize a session, turn off the sound in ones imagination, and focus on the nonverbal aspects of how the therapist characteristically listens and speaks. Consider the differences between these four therapists:

Therapist A typically listens sitting in a wide, relaxed position, his trunk in a diagonal back and to the side tilt. His body is generally still except for a distinctive way of nodding his head in long series of evenly stressed vertical motions. He gesticulates when he speaks with loose, free-flowing forearm gestures in arcs that swing back and forth. Then he stops and listens as before. In contrast, Therapist B listens in stillness without nodding or tilting his head and sits centered and back, the limbs in various crossed and narrow positions. When he speaks he makes a position change during his comment then becomes still as he listens again. His movement tends to stay even and without emphasis or accent. Therapist C also listens in complete stillness and without head nods but he keeps his head tilted. He sits relaxed, wide and back in

the chair rather like therapist A but with twists and bends at the waist that make for a two-unit differentiation of the trunk. Just before he speaks he will raise foot, head, and hand simultaneously then accompany his speech with long intricate loops and curves in space in elaborate sequences of various body parts (this apparently if he is making an interpretation) or small arcs and loops of the hand (this apparently if he is asking a question). Then he goes back to a relaxed stillness as he listens. Finally, therapist D sits with arms moderately wide, lower legs crossed at the knee and his posture is upright, somewhat back and subtly turned. His head is tilted and facing down a bit so that he looks up and sideways at the client as he listens. Listening is done with the body still except for brief, very small and controlled head nods and fidgeting of the fingers and foot which occur together in different yet synchronized rhythms. He raises his head up and back at the moment he speaks and may make crisp clear vertical forearm gestures with his speech. Then he drops his arm and "catches" it just at the end of the movement in a habit of cupping his fingers as he resumes the small fidgeting during listening.

The comparisons go on. We are studying further to see if, as appears to be so, each individual has specific mannerisms, preferred body part sequences, and characteristic movements when confronting or interpreting. Unfortunately there is not time to show what really is best conveyed visually. However we have completed a half-hour color videotape which demonstrates a therapist and patient's movement styles and then shows how they interact nonverbally. Called "Focusing Beyond Words--the Nonverbal Dimension of Therapeutic Interactions", it is designed as an introduction to the subject for mental health practitioners and students and can be purchased from Hahnemann.

Role-Specific Patterns

Although our sample is small, we have accumulated a number of impressions about the nonverbal etiquette required of a psychotherapist. Acknowledging variations according to ones location, training, theoretical orientation, and such, there do seem to be nonverbal conventions beyond the obvious ones of whether a patient sits or lies on a couch or how the chairs will be arranged. A polynesian anthropologist who had never heard of psychotherapy and decided to study the nonverbal behaviors of those designated "therapist", might conclude the following:

The therapist initiates the greeting and smiles however briefly at least once at the beginning of the meeting. The therapist must keep his or her head tilted, eyes steady on the client, and must rarely break eye contact even if speaking. The patient does this, usually turning his head and gaze toward and away from the therapist as he speaks. The therapist must never be more active than the client unless it is a special moment in the session. Therapists differ in the pattern of their activity for example, some are quiet until about 3/4 into the session then quiet at the end, while others show an initial period of physical activity, then a long quiet phase and a greater period of activity at the session end. Whatever the pattern, it is usually defined, circumscribed, and concentrated and for the rest they must somehow tone themselves down so that no matter how inactive the client, they are equally or less so. Therapists appear to do this with more or less success. Some who are naturally more vigorous and mobile display considerable effort to stay inactive. Patients may, but therapists may not, show "disapproval" in the forms of form of frowns, glowering, looking around the room, turning away and closing off from the other, yawning, aggressive

gesticulations etc., unless they accompany them with a sardonic manner as if play-acting to make a point. They must not gesture towards the client with too much vigor or suddeness. Strong movements are reserved for self-related actions, postural shifts, or mime-like gesticulations in an up-down direction.

No matter how different each person's nonverbal manner, they must establish some form of nonverbal rapport or congruity even if this means simply duplicating head tilts or varying the pattern of symetrical and assymetrical positions together. Pairs differ in the degree to which they move synchronously, mirror or echo each other, etc. but virtually every pair establishes some form of nonverbal rapport. If therapists interrupt they must make small movements, not large ones. If they disagree or disapprove they are allowed only subtle expressions of it such as turning the upper body slightly away, quickly nose-wiping, or maintaining an expressionless face through a patient's smiling.

Needless to say if our Polynesian anthropologist extended his observations to other forms of dyadic conversational behavior, he could make many more striking comparisons and contrasts between them and the nonverbal sociology of the psychotherapy session. Such studies would be valuable to the therapist for training, and might contribute greater insight into the nature of the psychotherapy process; the therapist may also find it valuable to have a description of his or her nonverbal style. Acknowledging the design limitations and the mid-stream character of this research, we are nonetheless already applying it to therapy education at Hahnemann. After the tapes are analyzed, we may provide feedback to the therapists on their and the clients' nonverbal patterns and some tapes have been

used for seminars. Obviously such assessments could be studied further in relation to person perception, therapist orientation, and therapist effectiveness. Most important however is the possibility that with this and other intense long-term studies of nonverbal communication, we will be making new discoveries and not simply confirming old notions in psychology.

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