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Dance Therapy Analysis: A Method for Observing and Analyzing a Dance Therapy Group

The Method

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Dance therapists are constantly in search of ways to explain what they do. A method for gathering phenomenological information that combines a traditional research strategy (careful observation and recording of behavior in its natural setting) with current technology (film and video tape) is being proposed here. Data thus amassed may facilitate understanding of what dance therapists do and how they do it. It is then possible to test whether it works and why.

To date, dance therapists have pursued three major strategies of research: scales, experimental studies, and descriptive analysis. Scales designed to measure individual differences and changes over time tell something about the individual but little about groups. Experimental studies that measure changes in isolated behaviors provide objective information about discrete phenomena, but reflect little about the process. Lastly, descriptive accounts of dance therapy sessions furnished a comprehensive picture of the event, but they are highly subjective and not replicable.

The method for observing and analyzing dance therapy groups that is being proposed is influenced by the following research approaches: Chapple's (1949) examination of interaction by viewing one content-free variable over time; Bales' (1951) development of a set of categories for observing group behaviors; Sheflen's (1973)

analysis of a family group as an interrelated system; and Davis and Schmais' (1967) pattern analysis of a dance.

Chapple developed the interaction chronograph to objectively describe the temporal aspects of the relationship between two individuals. The observer records when each action (verbal or nonverbal) begins, how long it lasts and when it ends. Information is obtained regarding several variables, among them, the amount of action, the presence of interruptions, and the timing of responses. Scores are determined for categories such as tempo (how often an action occurs) energy (ratio between silence and talk), initiative, flexibility, and capacity to listen. Measuring only the time aspect of an interaction, Chapple (1942) reports that selected indices can discriminate between effective and ineffective sales personnel, and between normal and psychotic individuals.

Bales Interaction Process Analysis (1951) is a descriptive system for observing small group behavior. Bales was intent on developing categories that could be used to study a wide variety of groups. He therefore observed numerous groups and recorded their behaviors. After considering as many as 85 items, he settled on 12 categories that define positive and negative acts along the following six dimensions: orientation, evaluation, control, decision-making, tension management, and integration.

Scores on each behavior can yield information about the individuals or the group as a whole. For example, Bales (1953:140-41) states that;

Those groups dealing with full fledged problems tended to show a typical phase movement through the meeting: the process tended to move qualitatively from *relative* emphasis on attempts to solve problems of *orientation* ("what is it") and subsequently to attempts to solve problems of *control* ("what shall we do about it").

Schefflen (1973) extensively studied a film of one psychotherapy session consisting of a schizophrenic patient, her mother and two psychiatrists. After carefully recording and analyzing all the verbal and non-verbal behaviors of the four people, he presents a systemic view of the total process along with the inter-relationship of the behavioral contributions of each individual.

Accordingly, behaviors are organized into units signifying various levels of complexity. For example, a "contending" behavior consists of a series of challenges, accusations, and insinuations followed by an act of conciliation or concession. The function and meaning of specific behaviors is derived from seeing their relationship to social, cultural, and ecological contexts. Meaning is not inferred apart from the context in which it exists. According to Schefflen (1973:338-339) "customary units are enacted to maintain transactions, institutions, and

cultures and . . . variants restore dynamic equilibrium and adapt organismic, social and ecological systems."

The analysis of "Water Study" (Davis and Schmais, 1968), a dance by Doris Humphrey, is based on the codings used in *Choreometrics* (1968) combined with the concept of the hierarchical organization of units derived from general systems theory (Buckley, 1967). To describe the development of this dance, the most salient variables were identified and traced over time. After studying the film and the Labanotation (1954) score of the dance, five parameters were found to account for the basic variation of the dance. They are: level, effort flow, group relationship, shape flow, and group formation.

The dance was analyzed by looking at it on four levels of abstraction: the movement-to-movement variations within a phrase, the phrase itself, a series of phrases called a section, and the pattern of the entire dance. Analysis of this dance at each level shows how the excitement of the dance is created by the simultaneous increases in effort, shape flow, and level coupled with changes in group formation (from scattered to cluster to scatter) and changes in group relationships (parallel to oppositional to parallel).

Dance therapy process analysis integrates the four above approaches. Content-free group behaviors described over time, within a dance therapy session, are combined and analyzed. Using a methodology adapted from Schefflen (1973), looking at process in a dance therapy group requires five procedures: (1) obtaining a record, (2) scanning to select parameters, (3) mapping of events, (4) searching for patterns, and (5) analyzing the data.

Based on preliminary research utilizing this method (Jacoff, 1976; Moss, 1976), some recommendations regarding each of these procedures will be made.

I. Obtaining a Record

Film. To analyze a dance therapy session requires a film or video tape. Each medium has advantages and disadvantages. Video is cheaper, easier to conceal, stop, and rewind; film can be speeded up, slowed down, and examined frame by frame. Both film and video provide a record that permits the revising of categories, the viewing of simultaneous events, and the applying of different systems of analysis.

Group. Choosing a group for filming requires knowledge of the population from which it is drawn. It is important to determine whether a typical or atypical session is to be analyzed. The group should be of a size that can be accommodated by the camera or cameras,

and should not be the researcher's own group as it is often difficult to be objective about oneself.

Setting. The ideal environment is the customary meeting place. However, minor modifications which do not substantially alter the content of the session can lead to greater precision.

Preparation. The subjects and the staff should be informed about the procedures and purpose of the film. A performance atmosphere should be avoided. Release forms need to be signed in advance and should clearly state how the film will be used and who will see it.

Filming. The entire session from the moment the dance therapist enters until she leaves is filmed. The total group from head to toe should be included at all times. Experienced camera operators should be cautioned to resist zooming in on some one fascinating detail. A wide-angle lens on a still camera seems to work best. If a sound track is important, a microphone is placed in the center of the room. Two cameras are needed to study the leader's relationship to the group. Film provides a lasting record but it has some limitations; for example, people can be made to appear closer or further away and dynamics get diffused. Therefore, the possibility of distortion should be taken into account.

II. Scanning to Select Parameters

The film is viewed repeatedly allowing the salient items to emerge. Four major areas of literature offering a spectrum of behaviors to look for in a dance therapy session are: movement research, communications, group process, and dance. Since "dance" therapy is the target of study, particular attention should be given to elements in dance, such as group formations, positioning, proximity, movement relationship, synchrony, and direction.

III. Mapping of Events

Many viewings are required for each item. In defining categories, the following are of concern:

Description. The observational basis for every concept should be made explicit.

Unit size. How the beginning and end of a unit is determined should be clearly stated.

Inclusiveness. The limits of each category should be established.

Inference level. Some behaviors are readily visible, while others must be inferred. For example, the same observed behavior of hand moving on to shoulder can be categorized as a light touch (low inference) or as a loving gesture (high inference).

The duration of each item is mapped on a horizontal time line. After all the categories are recorded, it is important to establish inter-observer reliability on those items with the highest degree of inference. Since reliability is related to training, it is important that the observers thoroughly understand the frame of reference, categories, and units involved. Lippert (1959:397) and associates found that the training is maximally effective when:

- 1) The observer assists in the development of the observer system, and 2) the training is concentrated in correct classification of marginal or difficult units rather than upon items which clearly fall into a given category.

IV. Determining Patterns

The graphs provide a record of the ebb and flow of a number of behaviors. To make sense of the accumulated data, the placement and the frequency of each behavior is noted. Antecedent and consequent behaviors are labeled. Behaviors which form larger units are clustered. Often the session is divided into beginning, middle, and end to see which behaviors categorize each section.

V. Analyzing the Data

The patterns and relationships that emerge from the data can be used in various ways: to examine the findings in light of existing theories in the behavioral sciences, to validate or refute other research, or to generate hypotheses about dance therapy. For example, data can be viewed in light of general systems theory (Anderson, 1974; Berrian, 1968), or various types of group process categories. The data can also be used to validate or refute existing research findings such as: (a.) the quantity of interaction increases as cohesion grows (Berelson and Steiner, 1964); (b.) communication increases when members are in physical proximity to one another (Berelson and Steiner, 1964); or (c.) postural congruence is related to people who like each other and postural incongruence to dislike or status differential (Schefflen, 1964). Probably the most important use of the data at this time, however, is to generate hypotheses and thus to develop an empirical basis for building a theory of dance therapy.

Of note is a noticeable lack of touch and synchronous activity during the last quarter of this session along with changes in the quality of vocalization. What had occurred previously to bring about this change and what actually took place in the last quarter?

If Figure 4, the time line charting total group behaviors, is reviewed, two peaks in the third quarter can be seen. The two periods of tri-synchronous behavior took place at these times, each followed by a change of the group formation from circular to small groups, dyads, and/or triads. Was the group attempting to resist dependency or intimacy?

A developmental pattern will be hypothesized here that appears to be reflected through the group movement experience. It would seem that the leader, by using a circular formation, touch and synchronous movement, symbolically re-enacted a supportive symbiotic experience then facilitated the individuals in the group to separate and experience autonomous and more mature relationships in the two small-group formations is further developed if the first episode is viewed as representing assertiveness testing (anal stage) and the second as reflecting a level of exploration of intimacy with openness and exposure (genital stage). It is not accidental that a patient kisses his partner during the second period and that all but one of these second small-groupings are heterosexual. In the one male-male dyad the two participants keep their arms folded across their chests, thus defending against sexual closeness.

The subsequent drop in group behavior during the fourth quarter in the time line (Figure 4) seems to relate to the affect just experienced in the second small-grouping. To recuperate from the intensity just experienced, a behavior very different from all earlier ones took place: the group stood relatively still—some members swaying in place—and shared their fantasies verbally of what they symbolically held in their hands. Here, individuality was acknowledged without a loss in group cohesiveness.

There is something very moving about this slow, gentle period of the session. The entire group seemed to be very involved and related yet none of the parameters chosen reflected the total involvement of this portion of the session.

The dance therapy session demonstrated a surprising amount of verbal and vocal behavior which brings up several issues: Is this in fact a so-called "nonverbal" modality; does this particular leader encourage vocalizations more than others; and/or were vocalizations used as a defense against the affect experienced by pure movement?

A Group Dance Therapy Process Analysis

The following is an example of this method within a group dance therapy session.

I. Obtaining the Record

For the purpose of this study, a seven-patient heterogeneous adolescent group was videotaped at Bronx State Psychiatric Center. Four staff members, along with the dance therapist, were also involved in the session. Two of the patients were hospitalized at the time of the taping and five were outpatients. All had had psychotic breaks of sufficient severity to warrant hospitalization.

All but one member of the group were familiar with dance therapy, some for as long as 18 months. The new member had a spinal deformity, causing her to have locomotive difficulties.

II. Scanning for Selection of Parameters

The following parameters were chosen after repeated viewings of the film:

1. Musical starts and stops.
2. Initiations—Movement changes as initiated by the leader.
3. Vocalizations—This included all oral sounds: speech, non-speech sounds, singing, and laughter.
4. Touch—Any time two or more bodies came into contact with each other.
5. Synchronous Movement—This category is divided into three parts:
 - (a) Rhythmic synchrony—When the same rhythmic time was being kept by everyone, in some part of their bodies, not necessarily the same body part.
 - (b) Effort synchrony—When the entire group used the same effort quality or dynamic at the same time.
 - (c) Spatial synchrony—When all the body parts of every member of the group were moving in the same relative spatial direction at the same time.
6. Sagittal Movement—This refers to any movement oriented to and from the center of the circle, or toward another.
7. Small-Group Formations—This category showed when smaller units, such as pairs and trios, formed.

III. Mapping of Events

These parameters were charted on separate horizontal time lines using the videotape recorder's number indicator as the numerical guide. Ten separate graphs were then compared (Figure 1).

Figure 2 presents the parameters according to the following: the number of times each parameter occurred; the total number of videotape units in which it occurred out of a possible total of 634 units; how long it appeared during the 32 minutes of the tape; and the percentage of its occurrence.

Figure 3 compares the percentage of time during the session that seven parameters take place. Musical starts and stops, initiations, and small group formations were omitted, as they are not considered active group behaviors.

Finally a line graph, Figure 4, is a composite picture of group behaviors during the dance therapy session. Touch, synchronicity, and sagittal movement are represented here. The non-movement parameters are again omitted.

A 77 percent inter-observer reliability was established on the synchronicity parameters which were selected due to the high level of inference needed for their identification.

IV. Searching for Patterns from the Data

The leader's movement initiations were more evenly and distantly spaced than initiations provided by patient leadership. This leader supported the movement changes verbally in approximately 20 percent of the initiations. Of these, about one-third involved leadership shifts to the patients, which took place halfway, three-quarters through and at the end of the session.

Touching occurred both before and during the formal session, and lasted for relatively long, solid periods of time. It did not occur when the movements were initiated by patients.

The percentage of time touching occurred simultaneously with the synchronies was as follows: touch occurred 44 percent of the time rhythmic synchrony did; touch occurred 73 percent of the time spatial synchrony did; touch occurred 84 percent of the time effort synchrony did.

The type of synchrony most frequently noted during patient-led movement was rhythmic, followed in decreasing order by spatial, then effort, synchrony. This pattern parallels the synchronicity frequency seen in the entire session. The three took place simultaneously for only a few—and short—periods of time, occurring primarily just after the mid-point of the session. It was following this tri-synchronous activity that the group broke up into small group formations.

Of all the behaviors noted, group vocalizations occurred most frequently: 65.9 percent of the time.

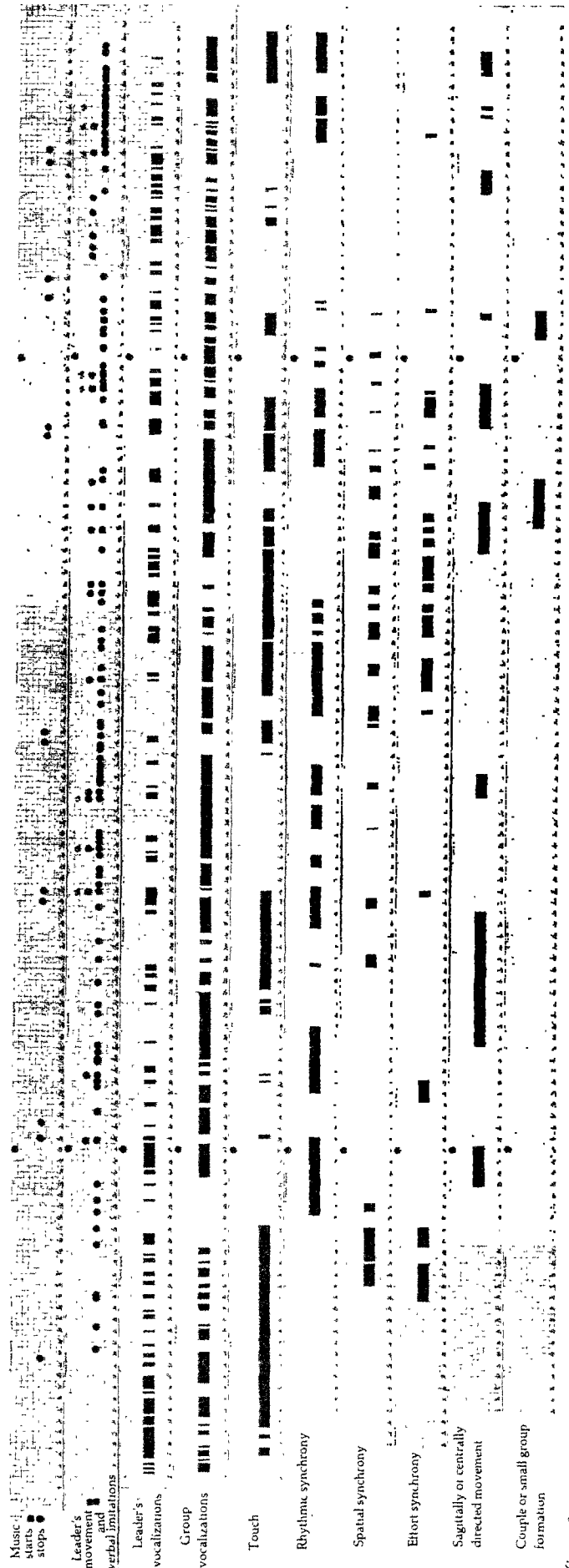


figure 1

	number of times parameter occurs	number of VTR units parameter occurs	number of minutes parameter occurs	percentage of time parameter occurs
LEADER'S VOCALIZATIONS	86	227	11.4	35.8%
GROUP'S VOCALIZATIONS	66	418	20.9	65.9
TOUCH	22	331	16.6	52.2%
RHYTHMIC SYNCHRONY	20	238	11.9	37.5%
SPATIAL SYNCHRONY	22	101	5.1	15.9%
EFFORT SYNCHRONY	19	116	5.8	18.2%
SAGITTAL MOVEMENT	10	160	8.0	25.2%
SMALL GROUP FORMATIONS	2	37	1.9	5.8%

figure 2

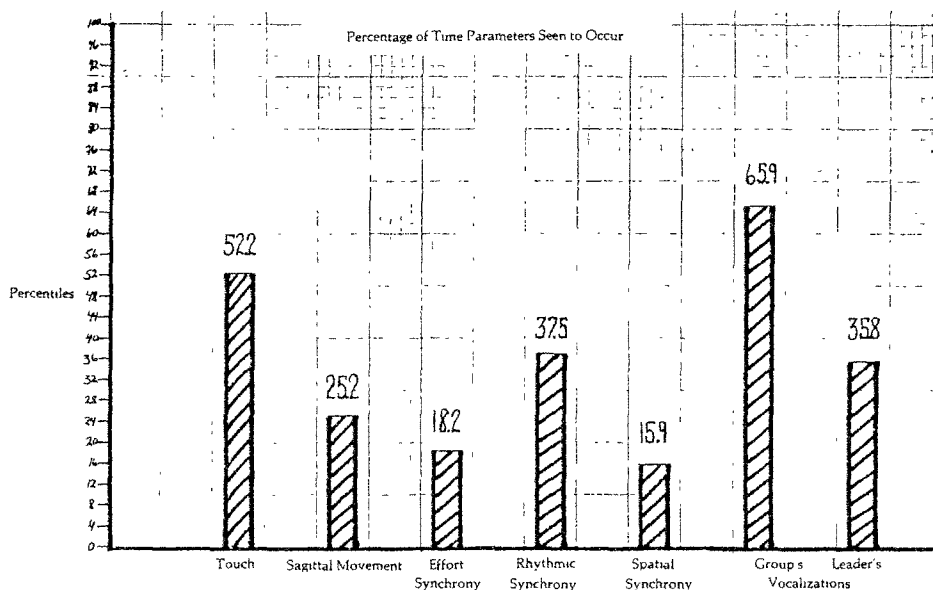


figure 3

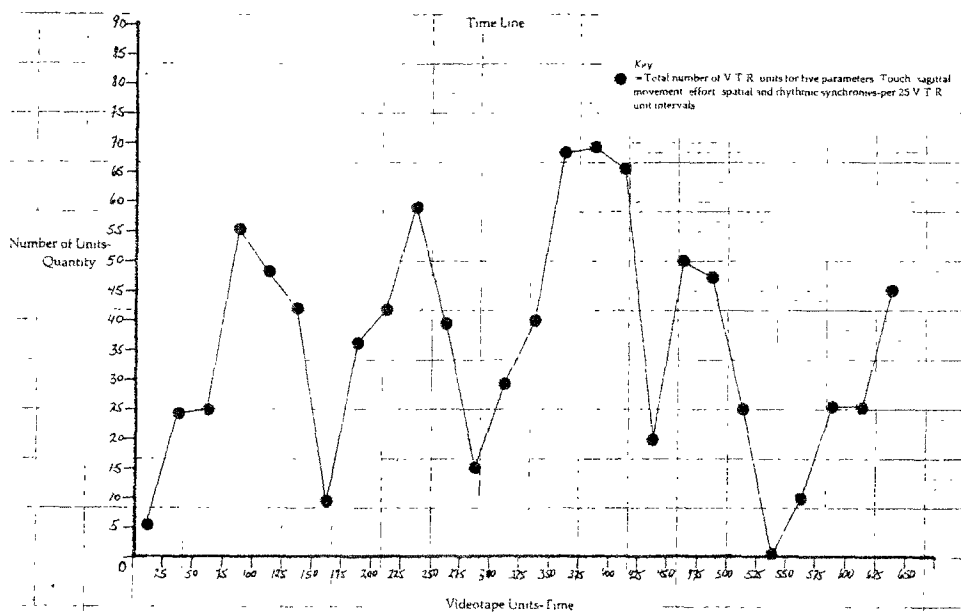


figure 4

V. Analysis of the Data

The large amount of touching—over 50% of the time—can be speculated to reflect comfort and trust with one another and/or dependency. It may also denote the style of leadership; however, this could only be ascertained by studies of various leaders with the same group.

Condon's statement that "Touch heightens synchrony" (Adler, 1968) can be elaborated on here: effort and spatial synchronies are heightened by or are more dependent on touch; however, rhythm appears to have cohesive qualities of its own which support synchrony without touch.

How much synchrony is expected from a group as a mark of its health? Hall (1976) states that "Synchrony or the lack of it is an index of how things are going and can be a source of great tension when synchrony is low, absent, or of the wrong kind." Is 37.5 percent a figure of health in this group? At times specific individuals were unable to be in synchrony with the group. For instance, the new member needed to define her own space and activities apart from the group and had to be attended to individually by several staff members before she was ready to join in with the members' synchronous movement. Would greater synchrony have been too

threatening at this stage of the group's process or only for this individual? Other relative questions are: How much synchronous movement did this group have when they first came together; did it change over time; and finally, would this parameter be a significant measure of this group's progress?

Conclusion and Summary

Several interesting ideas emerge from this study. To begin with, a large amount of information can be gleaned from quantifying and graphing a session. From this study a developmental pattern emerged; methods for comparative leadership styles suggested themselves; relationships between touch and movement came out; and synchronous activity and its developmental analog were manifested.

As studies of this nature increase, the development of a simple replicable descriptive system for observing and analyzing group dance therapy can be evolved. Information gleaned from the findings can serve to examine, validate or refute existing theories and open the doors for the beginning of a researched body of knowledge concerning dance therapy groups.

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