A paradigm of rehearsal interaction, based on the measurement and interpretation of behavioral transactions between actors and directors, is posited in this article. Verbal and nonverbal communication processes characteristic of actor/director interactions are operationally defined, and indexes of director/actor interaction, director/actor talk ratio, and director influence ratio are organized according to a general matrix analysis system. Suggestions are given for further investigations to describe and evaluate the rehearsal process in order to improve the quality of interaction, stimulate the acquisition of effective skills, and encourage positive attitudes. (KS)
Theatre literati and practitioners need no reminder that the rehearsal process is a complicated affair. Even when one concentrates on what is actually going on in a single rehearsal at a specific moment, the complexities of the interaction can seem overwhelming. Shifting events are kaleidoscopic; everything is in flux and it is easy to get lost in any attempt to balance the meaning of single events against the pattern of the whole. Yet, it is possible to view the whole process as a series of discrete events through time involving two fundamental activities. Either the actors act while the director watches, or there is an exchange between them concerning the work itself. This latter activity, involving both verbal and non-verbal communication, is usually intended to move the work toward the best possible performance. In face-to-face interaction, actors and directors engage each other on several levels; there is an exchange of ideas, opinions, feelings and decisions concerning the work at hand. But what are the precise characteristics of this process?

Surprisingly, for a subject of such obsessive interest to those of the theatre, there has been no systematic study. True, rehearsal stories are popular; there is a rich and intriguing lore. Many anecdotes suggest that the rehearsal hall is sometimes a battleground where egos and emotions collide in the charged space between the director and his cast. Helen Hayes, for example, tells of an incident involving Harold Clurman: "I blew up at him so terribly, and I couldn't believe that I had done it. But he was barging in there where he didn't belong." (Funke, 1967, p. 72) A recent symposium dealing with actor/director relationships contained some explosive exchanges, but little substantive information. Directing texts warn that the rehearsal relationship is a
touchy one, but most offer little more than vague prescriptive statements or a sprinkling of general admonitions—what the director "should" or "shouldn't" do if he wishes to create and sustain a good working atmosphere. Often, these are followed by broad hints concerning the disastrous consequences if the suggestions are ignored. Typical is the following advice from Curtis Canfield:

> It is the director's business to criticize and make corrections. But he should be at pains to do both in as objective a fashion as possible. His attitude should be one of friendly detachment, not cold or hostile. It should bespeak a sincere desire to be helpful and constructive. Actors are quick to sense this posture and under it will normally react to correction with grace. What is essential is that the director establish very early a footing of mutual confidence. He must not talk about it but show by his actions and his whole bearing that he respects the actor's abilities, is considerate of his feelings and judgement, and when the chips are down, is on his side. There is nothing so detrimental to morale, so inhibitory to the creative atmosphere and eventual success of a production as a state of war between the director and the members of his cast.²

How well do directors succeed in establishing this "footing of mutual confidence?" Apparently not very well, for as Charles Marowitz has pointed out:

No production ends without some actor or actress venting his or her animosity toward the arbitrary, stupid and fatuous man who spent three weeks piecing together the delicate elements of the drama. Inevitably. There is a heated discussion concerning the director's province as opposed to the actor's province. Also invariably (since actors always outnumber directors) there results a general agreement that the director doesn't know his crepe from his putty and it's a damn good thing the show is closing. (Marowitz, 1964, p. 50).

It would seem, then, that the "creative atmosphere" so widely advocated is in reality difficult to achieve. Acting texts, too, suggest that the rehearsal relationship is crucial, but rarely does one find more than a page or two of similar generalized advice, most of it advocating thorough preparation, positive thinking, an open mind, and patience. Two current texts never mention the director! (Ironically, one is titled "Rehearsal.").

In short, these and other sources reflect the widespread tendency to regard acting and directing as independent processes. Yet they are so closely related in rehearsal that to discuss one without treating its interactive dependence on the other would seem an untenable approach to theatre study. It would appear that this is precisely what directing and acting pedagogs have been doing for years. To date, there is no objective treatment of what George Gunkle has termed the "communications subsystem" of rehearsal interaction. (Gunkle, 1971). This article is a beginning point; it posits a model, or paradigm, for rehearsal interaction as an analogy for the behavioral transactions between actors and directors. In turn, selected components of the paradigm are operationally defined in terms of verbal communications, which are divided into a set of mutually exclusive categories. The proposed system of interaction analysis, based on techniques widely used in education research, focuses on the content-free aspects of verbal communications. That is, it is more concerned with the quality of verbal statements than it is with literal content. How people say what they say is as important as what they are saying.
A Rehearsal Paradigm

Assumption: Rehearsal work is a teaching/learning process. The director-teacher has two "instructional objectives": First, he must ensure that the actors understand his total production concept and are able to relate that concept to their individual roles. Second, he must meet and solve individual and group problems encountered by the cast as rehearsals progress. The interaction, then, is defined as set of teaching/learning events in which the director influences actors in such a way as to effect a desired change in their behavior (learning). Sometimes taking the initiative and sometimes responding, he is a source of stimulation and feedback to the actor; he provides most of the cues and reinforcements in the actor's learning environment. Whether he is domineering or facilitative, the director's central teaching task is the same: he must arrange for the actor to make an appropriate response so that it can be reinforced. The actor experiences a teaching force exerted through the manipulation of stimuli and reinforcements.

Director influence, then, is the sum total of those activities which constitute his leadership role in rehearsal, or his use of power to control actors for the purpose of performing a shared task. In setting the objectives for each rehearsal, in lecturing and giving directions, in soliciting actor opinions, in praising or criticizing, in accepting or rejecting actor ideas and feelings, the director is the key agent in the rehearsal drama. It is the precise nature of this active control which determines the essential qualities of the working relationship; the director's mode of influence is the parameter which shapes every aspect of the actor's rehearsal behavior, including his attitudes and feelings.

The exercise of power in relation to actors has been a traditional criterion in descriptions of directorial methodology. Gordon Craig, who popularized the authoritarian, or autocratic style, advocated this ideal:

The relation of the stage-director to the actor is precisely the same as that of a
ANALYZING REHEARSAL INTERACTION

conductor to his orchestra or of the publisher to his printer.... The finer the actor, the finer his intelligence and taste, and therefore the more easily controlled. (Craig, 1963).

At the other end of the scale are directors who assume a kind of "low profile" in rehearsals, encouraging the actor to enter into a state of reciprocal collaboration such as that advocated by Stanislavski late in his career. In a permissive environment which encourages maximum freedom for exploration and self-discovery, the actor is placed on an equal footing with the director, who exchanges the role of task master for that of a guide and partner in an endeavor of mutual creation. One of the clearest statements of the facilitative credo was made by Arthur Hopkins:

I want the actor to be unconscious of my supervision.... I must renounce at the outset all temptation to be conspicuous in direction, to issue commands, to show how well I can read a line or play a scene, or slam a door; to ridicule or get laughs at a confused actor's expense, to criticize openly. I must renounce all desire to be boss, or the great master, or the all-knowing one. I must guide the ship by wireless instead of attempting to drag it after me.... When I discover that an actor is becoming conscious of me, I know there is something wrong somewhere, and it is usually with me. (Hopkins, 1918, pp. 22-23).

It is likely that most directors routinely employ some combination of the two modes; only a very few may be properly assigned to one extreme or another. For most, terms such as "authoritarian" or "laissez-faire" can lead to confusion when used to permanently classify a director's working methods. Max Reinhardt, for example, used a variety of techniques which have led to conflicting assessments of his basic rehearsal
EMPIRICAL RESEARCH IN THEATRE

"style." But when one seeks precise description, neither a director's statement of principle nor the impressions of colleagues are satisfactory. For one thing, directors do not always do what they might like to do; the gap between intention and performance is often a wide one. For another, actors are often unable to relate the import of particular incidents to the overall interaction. And finally, every director confronts situations which force him to change his methods from one production to another or even within different phases of the same rehearsal period. A single director may have many rehearsal "styles;" his mode of influence can be measured only by an instrument capable of recording moment-to-moment interaction and organizing the information systematically.

In recent years, much research in education has focused on the patterns of classroom interaction, an emphasis now widely viewed as promising important gains in understanding teacher influence on learning.

In studies of classroom interaction, there is convincing evidence that the teacher is the prime

3See essays by Reinhardt's colleagues in Max Reinhardt and his Theatre, ed. Oliver M. Saylor (N.Y.: Brentano's, 1924). More contradictions may be found in Gertrude Eysoldt, "How Reinhardt Works with his Actors," Theatre Arts Monthly, 1921 (October), 5, 316.

Stanislavski, too, left a confusing record. An analysis of transitions in his rehearsal practices may be found in David R. Press, "Autocrat or Collaborator? The Stanislavski Method of Directing," Educational Theatre Journal, 1966 (October), 18, 284-70.

determinant of a social climate or classroom atmosphere which appears fairly stable, once established, and which has measurable effects on the verbal behaviors, attitudes, and emotions of students. (Flanders, 1970).

If we are concerned with how directors and actors interact, then the affective qualities of their communications are particularly important. Consider, for example, the following exchange:

Actor: If I knew what you wanted, I would do it.
Director: But I'm telling you what I want.

If read without inflection, information predominates: the actor appears willing, even eager. The director is resolute. In fact, the exchange was a bitter one, the actor shouting his frustration and the director rebuking him by speaking as though to a very small child. In reality, the effect of the communication concerns us as much as the literal content. Therefore, this system of analysis categorizes verbal statements according to their affective qualities. Some of the categories discussed in the following section have a cognitive element, but most are concerned with the emotional and attitudinal texture of the rehearsal atmosphere.

An Observational System of Rehearsal Interaction Categories (OSRIC)

The components pertinent to the model of verbal communications which follow are DIRECTOR DISPLAY—ACTOR RESPONSE—DIRECTOR FEEDBACK. In DISPLAY and FEEDBACK, the total set of director verbal behavior is divided into eight mutually exclusive categories, while ACTOR RESPONSE is divided into six (Table 1). The system is organized in such a manner that any verbal statement will fall in exactly one category, i.e., the categories are totally inclusive and mutually exclusive with respect to the verbal interaction of actors and directors in rehearsal. Director Influence is defined as a set of verbal behaviors which has the effect of expanding or restrict-
TABLE 1
AN OBSERVATIONAL SYSTEM OF REHEARSAL INTERACTION CATEGORIES (OSRIC)

<table>
<thead>
<tr>
<th>DIRECTOR DISPLAY and FEEDBACK</th>
<th>INCLUSIVE INFLUENCE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Acceptance of feeling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Praise or encouragement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Accepting ideas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Asking questions</td>
<td></td>
</tr>
<tr>
<td>PRECLUSIVE INFLUENCE</td>
<td>5. Lecture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Giving directions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Corrective feedback</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Criticizing or justifying authority</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTOR RESPONSE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONAL</td>
<td>9. Acknowledgement</td>
</tr>
<tr>
<td></td>
<td>10. Initiation</td>
</tr>
<tr>
<td></td>
<td>11. Negative affect</td>
</tr>
<tr>
<td></td>
<td>12. Positive affect</td>
</tr>
<tr>
<td></td>
<td>13. Questions</td>
</tr>
</tbody>
</table>

| PERFORMANCE | 14. Directed rehearsal | |

<table>
<thead>
<tr>
<th>OTHER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Actor/actor discussion</td>
<td></td>
</tr>
<tr>
<td>16. Silence or irrelevant behavior</td>
<td></td>
</tr>
</tbody>
</table>
ANALYZING REHEARSAL INTERACTION

The range of actor behavior in rehearsal. Inclusive influence expands permissible actor behavior, encourages reciprocal collaboration, and promotes actor independence. It consists of statements soliciting ideas and opinions of actors, praising or encouraging actor behavior, and accepting or clarifying actor feelings. "Preclusive" influence consists of statements which create or maintain actor dependence, reinforcing director dominance and limiting actor freedom. Giving directions, lecturing, and correcting actor behavior are the major categories of preclusive influence.

The ratio of inclusive to preclusive statements provides a simplified picture of director function as role behavior which controls the level of actor dependence in rehearsal. Such a ratio is a relative measure of the extent to which a director employs methods which, on the one hand, invite high actor participation in questions of procedure and evaluation, and on the other, those which restrict the actor to a clearly subordinate role.

DIRECTOR DISPLAY and FEEDBACK

The following are categories of verbal communications which relate to the director's use of

For this definition and the method of analysis outlined here, I am indebted to Ned A. Flanders and his seminal research in classroom interaction. His concepts of "direct" and "indirect" teacher influence parallels my use of the terms "inclusive" and "preclusive" to describe contrasting modes of director influence in rehearsal. My terminology is borrowed from Morris Cogan, "Theory and Design of a Study of Teacher-Pupil Interaction," Harvard Education Review, 1956, 26, 315-42. For a review of theory and research up to and including Flanders' work, see Edward Amidon and John B. Hough, eds., Interaction Analysis: Theory Research and Application (Reading, Mass.: Addison-Wesley, 1967). Flanders' most recent book, Analyzing Teacher Behavior (Reading, Mass.: Addison-Wesley, 1970), suggests other modes of interaction analysis far more sophisticated than those outlined here.
inclusive influence in the DIRECTOR DISPLAY and FEEDBACK components of the paradigm:

1. Acceptance of feeling. The director accepts feelings when he says he understands how the actor feels, or implies that the actor has the right to express both positive and negative feelings. Such statements represent both acceptance and clarification of actor emotions, particularly when the director asks the actor to explain his emotional state. Comments which recall or predict actor feelings, as well as those which reflect current emotional states are included here. Generally, this category represents all instances where a director expresses interest in, or concern for, the emotional well-being of the actor. Examples of statements included here are: "You seem uncomfortable with this scene. What's the problem?" "This is a first dress rehearsal, so we can all expect to be more tense than usual." "I'm sorry for interrupting you at this point, but we have to clear up a movement problem." Frequently this category is used when the director must respond to an actor's expression of negative feelings, unless the director considers expression of feeling to be inappropriate to the rehearsal task.

2. Praise or encouragement. Any statement which rewards present, past, or predicted actor behavior is classed as praise. Often a director may use just a single word: "good," "fine," or "yes!" When such words, however, represent habitual verbal behavior on the part of a director, they lose their praise value and are no longer coded in this category. Sometimes the director will use a predicted response as praise by saying, "This scene is going to play beautifully," or "I think we're going to have a great show." Statements of agreement with actor ideas, or short phrases such as "go on," "uh huh," and "go ahead" function as encouragement for the actor to continue developing his ideas. Jokes that release tension, but not at the expense of the actors are included in this category. Generally, this category includes all verbal behaviors (including laughing) which positively reinforce any aspect of actor behavior. Jokes with an element of sarcasm aimed at actors, or those which are intended to change some element of actor behavior are included in category 7.
3. Accepting ideas. This category is used when the director clarifies, develops and builds on an idea initiated by the actor. Though similar to category 1, category 3 is used only when an idea is expressed, not when there is acceptance of expressed emotion. When the actor suggests an idea relating to interpretation or to stage mechanics, the director may paraphrase it, restate it in his own terms, or simply allow the actor to try it within the context of the scene. Typically such an allowance is stated: "All right, let's see it." If, however, in developing a notion originally suggested by the actor, the director brings his own ideas into play, then the category shifts to 5. It is important to remember that 3 is a neutral response to an actor statement. If the director statement implies a positive or negative response, then categories 2 or 7 are used. For example, if the actor says, "I think the scene would be better if I played the whole thing facing upstage," category 3 is used if the director responds by saying, "I see what you mean. Next time try it that way." If he says, "Yes, I like that idea," then category 2 is coded, while a statement such as, "No, that wouldn't work because it would throw the scene out of focus" would be coded as corrective feedback, or category 7.

4. Asking questions. Only questions to which the director expects an answer are included in this category. If the director asks a question and follows it immediately with a statement of opinion or a lecture statement, then he did not wish the question to be answered. Rhetorical questions are not included in this category, nor are questions which are designed to be critical of the actor: "When do you intend to learn your lines?" is more appropriately placed in category 8, because it represents an effort to change actor behavior from unacceptable to acceptable. If the question is a narrow closed question of procedure or mechanics, actor response is coded in category 9. "What was your entrance cue for this scene?" is a question which elicits a predictable response, whereas a question calling for actor evaluation, analysis, or opinion would still be coded in category 4, but the response is category 10, because the actor is free to express himself in a fashion not determined by the director. An example of such a question would be: "Why do you think Hamlet doesn't just go ahead and stab Claudius in this scene?"
The following categories are used to code the director's use of preclusive influence:

5. Lecture. Whenever the director is discussing, explaining, or giving facts or opinions to actors, this category is used. The information contained in this form of communication is normally designed to orient the actor to some aspect of the director's overall production concept, his interpretation of specific values within the text, or to some aspect of staging mechanics or rehearsal procedures. Often the director will shift immediately from orientation (5) to directive statements (6) with an expectation of compliance in order to test the actor's understanding of the information presented. When this occurs, there is a shift to category 6. Such a shift occurs in the following: "It is important to attack the opening of this scene strongly, because it occurs right after intermission, and as a general rule, one has to work a little harder to get the audience's undivided attention following an act break. All right, let's take it from the top, and keep up the energy."

6. Giving directions. Any request or imperative statement made by a director with the expectation of actor compliance is included here. Often a director will phrase a directive in the form of a question: "Why don't you try entering a little sooner on that one?" He may phrase it as though it were optional: "Let's try changing the blocking in the first part of this scene." In both cases the approach is indirect, but there is a clear implication that the actor is expected to comply. This category is used to inform the actor of the immediate behavior expected of him.

7. Corrective feedback. A statement used by the director to correct actor ideas or performance in a non-threatening manner is classed as corrective feedback. To accomplish this, the director will explain his correction in terms of its appropriateness by definition, by generally accepted custom, or by empirical fact. A statement such as: "The audience will find your entrance more interesting if you will hold your first line until after you have closed the door" relates the corrective function to factors outside the
director's personal response, and allows the actor to adapt his behavior without feeling threatened by the exercise of the director's power.

8. Criticizing or justifying authority. This is used to code a statement which informs the actor that his behavior is unacceptable in a manner which lowers the actor's status or deflates his ego. In addition, this category is employed when the director uses extreme self-reference or sarcasm to reject actor ideas or performance. In the effort to correct actor behavior, a director will sometimes parody his performance, or he will imply that an actor idea or question is a stupid one. If the director is forced to defend himself or to justify his authority, this category is used.

ACTOR RESPONSE

In the component labeled ACTOR RESPONSE, a distinction is made between a "personal" and a "performance" response. These are the OSRIC categories used to code the actor's personal response:

9. Acknowledgement. Actor statements which acknowledge directives in a neutral manner or which answer narrow director questions are included here. Most often, it is used when, in response to a director statement, an actor merely says, "All right," "Okay," or "Oh, I see." It is also employed to code answers to such director questions as: "What is your entrance cue for this scene?" or "I think you're misreading that line. What is it you're supposed to say at that point?" In each case, the director elicits a predictable response.

10. Initiation. When the actor makes a statement or contributes an idea that is not called for by the director, it is coded here. Also included are answers to broad director questions calling for opinion, analysis, or evaluation. It is often difficult to distinguish between categories 9 and 10. When responding to a direction or to a narrow question, the actor will frequently bring his own ideas into play. When this happens, there is a shift from category 9 to category 10. In general, most questions which call for a predictable actor response will elicit a category 9 statement, while those which invite unpredict-
able responses will result in a category 10 statement. A shift from category 9 to category 10 is contained in the following actor statement made in response to a director's question concerning the proper timing of an entrance cue: "Well, I know you told me to wait until he crosses all the way downstage but I think it's better if I catch him halfway across."

11. Negative affect. This category is employed when an actor makes statements which reflect stress or tension. Any verbal expression of anxiety, antagonism or unhappiness is coded here. Negative affect comments may be aimed at the director, the other actors, or the speaker himself; calling for lines in an angry manner or breaking concentration in a disruptive fashion are typical behaviors in this category. Occasionally, the actor may express unhappiness with something the director has said. This category is also used when an actor justifies, or rationalizes, some aspect of his performance in response to director criticism. An example of this would be:
Director: "Your late entrance spoiled the whole scene." Actor: "Well, you said not to rush it. And besides, I just can't change the costume in time."

12. Positive affect. Included here are joking, laughing, or otherwise expressing satisfaction with the director or with the actor's work. If, after trying something suggested by the director, the actor says, "Yes, that feels much better," then category 12 codes the statement. This is used only for statements made by actors working under the direct supervision of the director; it is not intended for coding laughter of actors who are watching other actors work.

13. Asking questions. For the actor, this category is analogous to category 4 of director talk. If he asks a narrow question of procedure ("Should I sit on this line?") the director response is either 5 or 6. If, however, the question asks for the director to evaluate the actor's work, then the response is likely to be 2 or 7.

Only one category is used to code the actor's "performance" response to the director:

14. Directed rehearsal. This includes all actor work within the context of the script and
carried out under the immediate supervision of the director. In other words, 14 is coded whenever the actor is "acting."

OTHER

There are two categories which cover all rehearsal behavior not included above:

15. Actor/actor discussion. Problem-solving talk among actors under the director’s supervision is coded here. This category is used only when actors are directly addressing each other for purposes directly related to the rehearsal task. All social communication is coded in category 16.

16. Silence or irrelevant behavior. This includes all nonfunctional periods of general talk or of silence which is unrelated to the purposes of rehearsal.

It will be noted that the division of director talk into "inclusive" and "preclusive" areas parallels the "integrative" and "dominative" behaviors categorized by Andersen, and the "indirect" versus "direct" influence used by Flanders. While retaining the essential descriptive terminology used in Flanders’ ten-category system, OSRIC expands his system in three important areas:

1) An additional category has been added to the preclusive influence area in order to distinguish between neutral, non-threatening corrective feedback (7), and the more restrictive, ego-deflating director criticism (8).

2) Flanders’ single category for student-initiated talk has been expanded to three categories which indicate the emotional valence of actor statements. Discernible levels of negative or positive feelings which have verbal expression are coded as 11 or 12 respectively.

3) Categories 14, 15 and 16 distinguish between task-oriented behavior and interaction which is basically irrelevant to rehearsal purposes.

As in Flanders’ system, enumeration of cate-
EMPIRICAL RESEARCH IN THEATRE

gories is strictly nominal; there is no implication of relative value, and no judgement is made concerning the appropriateness of any statement.

Coding and Tabulating DSRC Data

Coding of verbal communications may be done either by live observation of the rehearsal or by listening to a tape recording. Every three seconds the coder writes the number of the category which most accurately describes the communication that has just taken place. The sequence of verbal interaction is thus preserved by a series of numbers corresponding to DSRC categories.

To illustrate how such data can be organized into a matrix which preserves the generalized sequence of interaction, consider the following interchange from an actual rehearsal and the coding procedure in parentheses:

ACTORS REHEARSING

DIRECTOR: Okay let's hold it for a second. All right sorry to keep stopping you, because I know we've got a long way to go yet and not too long a time. Let's try it just one more way. Combine what you just did with what you tried before. In other words, keep playing the quality of indecision, but use it to attack the other character, to get him hot...

ACTOR: Oh, as the character, I'm indecisive but I'm making a game out of it.

DIRECTOR: Yes, because you really don't want to admit it.

ACTOR: I think that once I know my lines, I should always be blindfolded, in rehearsal, don't you?

DIRECTOR: Yes, that sounds fine to me. I agree with that because you will have to develop a very strong sense of place with this character, and
the audience have to sense how he
tunes in to things. Okay, so take
it again.

ACTORS REHEARSE

For organization into matrix form, the
numbers are paired, with each pair representing a
single interaction sequence. In the example, the
first pair would be a 14-6 sequence, indicating that
a directive statement immediately followed some actor
performance work. This and some subsequent pairings
in the example can be indicated in the following
manner:

<table>
<thead>
<tr>
<th>First pair</th>
<th>Second pair</th>
<th>Third pair</th>
<th>Fourth pair</th>
<th>Fifth pair, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

The pairs of numbers are now tallied in a
matrix (Table 2) with the first number determining
the row, and the second number the column for each
entry. Thus, the 14-6 pair would enter the matrix as
a single tally in the cell formed by row 14 and column
6. The second pair, 6-1, is tallied in the cell form-
ed by row 6 and column 1, etc. Note that each pair
of numbers overlaps with the previous pair, and with
the exception of the first and last number, each
entry is used twice. In Table 2, cell tallies have
been totaled to create a matrix which represents
approximately fifteen minutes of interaction in the
same rehearsal from which the example was taken. The
entries in each cell represent the total number of
times that particular interaction took place in the
observation period. Cell entries are summed by rows
and columns (note that the column total equals the
row total). Below the column totals, there are per-
centage figures which represent the relative propor-
tion of time that the verbal interaction involved
each category. For instance, the percentage in column
### TABLE 2

**SAMPLE INTERACTION MATRIX**

<table>
<thead>
<tr>
<th>OSRIC Category #</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
<td>1</td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>3</td>
<td>2</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>107</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>112</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>T</td>
<td>12</td>
<td>13</td>
<td>12</td>
<td>3</td>
<td>27</td>
<td>52</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>16</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>112</td>
<td>9</td>
<td>2</td>
<td>278</td>
</tr>
<tr>
<td>%</td>
<td>4.4</td>
<td>4.3</td>
<td>10.0</td>
<td>.9</td>
<td>1.4</td>
<td>2.5</td>
<td>.9</td>
<td>.9</td>
<td>.9</td>
<td>40.7</td>
<td>.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

4.8 .9 18.5 0 5.9 .9 40.7 .7
6 indicates that for this observation period, 18.5 per cent of the time was accounted for by the giving of directions. The actors were actually rehearsing, or acting, 40.7 per cent of the time, as indicated by the figure in column 14. In each case, the percentage is calculated by dividing the total in each column by the total number of entries for the entire session (278). Cells in which the row number equals the column number are called "steady state" cells, representing those instances where a statement in one category is followed immediately by another statement in the same category. In the example, there were 8 instances where the director was accepting or clarifying an actor idea for a period longer than three seconds, indicated by the entry in the (3,3) cell.

Each cell on the diagonal of the matrix is "steady state," while all the others represent transitions from one category of verbal behavior to another. A description of the total interaction for the session may be obtained by simple arithmetic operations on selected areas within the matrix.

**General Matrix Analysis**

Using the column totals in Table 2, there are three indexes which yield information about some generalized aspects of the verbal interaction:

1. **Interaction Index (II)**. This ratio compares the amount of director-actor interaction with the total time spent in the rehearsal session. It is obtained by dividing the summed totals in the columns representing director and actor talk (columns 1 through 13) by the summed totals in the columns representing actor performance, actor/actor discussion, and irrelevant behavior (columns 14 through 16).

\[
II = \frac{\text{director/actor talk}}{\text{"rehearsal" time}} = \frac{\text{columns 1-13}}{\text{columns 14-16}} = \frac{155}{123} = 1.26 
\]

Another way of expressing this ratio would be to sum the percentages in columns 1-13 and in columns 14-16. This results in a comparative ratio of 55.4 per cent "talk" time, and 44.6 per cent "rehearsal" time. In other words, just a little over half the observation session consisted of director/actor interaction, with the rest devoted to actor performance, actor/actor discussion, and irrelevant behavior.
2. Director/Actor Talk Ratio (D/A). Of the total time spent in director/actor interaction (columns 1 through 13), the extent to which either dominates the discussion is easily calculated by dividing the tallies in the director talk columns (1 through 8), by the tallies in the actor talk columns (9 through 13).

\[
\text{D/A Talk Ratio} = \frac{\text{columns 1-8}}{\text{columns 9-13}} = \frac{122}{33} = 3.7
\]

In percentages, the ratio becomes 79 per cent director talk compared with 21 per cent actor talk. Of the total time spent in verbal communication, then, the director dominated the discussion by talking nearly four times as much as the actors.

3. Director Influence Ratio (I/P). The most important of the three general indexes, this ratio expresses the relative frequencies of inclusive and preclusive director influence. It is stated above that only a few directors are consistently autocratic or consistently laissez-faire; most employ a combination of the two modes. This index is a precise measure of the extent to which any given director can be said to use a blend of the two styles. It is a simplified index of the director's use of power and control over his actors, and it can be used as a means of describing his methods of motivating and evaluating his actors. This is particularly true if the more neutral statements in categories four and five are eliminated, and the ratio is calculated by dividing the entries in the more obviously inclusive areas (columns 1-3), by the entries in the clearly preclusive areas (columns 6-8). The resulting ratio indicates the extent to which the director employs one kind of influence over another. A ratio of .5, for example, would indicate that for every inclusive statement there were two preclusive ones.

\[
\text{I/P} = \frac{\text{columns 1-3}}{\text{columns 6-8}} = \frac{37}{54} = .69
\]

Expressed as percentages, this director used inclusive influence 40.5 per cent of the time, and preclusive influence 59.5 per cent of the time.

By combining the three indexes, a general
statement can be made concerning the nature of the verbal interaction for this session: About half the time spent in this rehearsal consisted of the director communicating with the actors. During these discussions, the director dominated by speaking almost four times more often than actors. While he was speaking, he was inclined to exercise preclusive influence over the actors more often than inclusive influence, but the difference is not striking.

How were the actors responding to the director influence? A comparison of columns 10 and 9 shows that actors were initiating ideas much more often than they were merely acknowledging the director (5.9 per cent to 1.4 per cent). Though the director was dominating the discussion, his blend of inclusive and preclusive modes resulted in actor participation marked by a high incidence of idea initiation.

Analysis of Areas Within Matrix

In Figure 1, the areas indicated in heavy outline can be analyzed separately to yield a better picture of the flow of rehearsal communications. First, each area is defined in terms of its general significance, and the total number of entries is computed. Then, cells of particular importance within each area can be discussed separately. And finally, the distribution of cell tallies within certain areas can be used to construct an index of the rehearsal interaction as a reinforcement environment.

First, the areas of primary concern:

1. Extended inclusive influence. The director's use of extended praise and extended acceptance of actor ideas and feelings are plotted here, as are transitions from one inclusive category to another, e.g., shifts from acceptance of actor ideas to praise. If this area is heavily loaded in relation to other areas, it represents director behavior which stresses acceptance, praise and encouragement as a means of motivating and controlling actors.

2. Extended preclusive influence. These cells represent the director's emphasis
FIGURE 1

PRIMARY AREAS OF MATRIX ANALYSIS
on corrective feedback, criticism, lengthy directions, and shifts from one of these categories to another. Tabulations in this area reflect the director's use of authority.

3. **Director display.** Entries in this area represent director statements consisting primarily of lecture and questions. This category is so named because it is more associated with the DISPLAY component of the paradigm than it is with FEEDBACK.

4. **Director response to actor talk.** An important aspect of the director's feedback function is his reaction to actor statements, whether those statements are ideas, feelings, or questions. Area 4 contains all instances of director talk which immediately follows actor talk. Note that this is an entirely transitional area, for as the director continues talking, the tallies shift to another area.

5. **Director response to actor performance.** This area is similar to area 4, except that it represents all instances of the director's immediate reactions to the actor's performance. Every time the director speaks following actor work within the context of the script, an entry is made in this area.

6. **Actor response to director talk.** Another transitional area, 6 contains all instances of the beginning of actor response to director talk. Examination of entries in this area can indicate which type of director statements are eliciting actor responses.

7. **Sustained actor talk.** Extended talk in a single category is tallied here as well as all instances of transition from one category of actor talk to another. For example, a shift from acknowledgement of direction (9) to a contribution of an idea (10) would be contained in this area.
5. **Actor response to actor work.** Positive and negative actor comments which immediately follow a completed performance segment are tallied here, as well as actor interruptions for directorial clarification.

**Indexes for Director Feedback and Actor Response**

Because the director is the agent primarily responsible for reinforcing the actor's learning, it is essential that systematic description of director influence include an objective measure of the director's feedback. The FEEDBACK component in the rehearsal paradigm is nothing more than the director's responses to actor behavior as perceived by the actor. A simplified index of director response to actor behavior may be constructed from matrix data by computing the relative frequencies of positive, neutral and negative director statements which immediately follow actor talk and performance work. From the actor's viewpoint, such an index would represent the relative probabilities that his expressed ideas and performance work would be received with praise, neutrality, or correction from the director.

In Figure 3, areas 4 and 5 are combined and then divided into the three sections indicated by dotted lines. The director's positive responses to actor ideas and performance are tallied in the area formed by the intersection of rows 9-14 with columns 1-3. Neutral responses are contained in rows 9-14 intersecting with columns 4-6, while negative responses are in the area formed by rows 9-14 and columns 7-8. The Director Feedback Index (DFI) is obtained by first totalling the entries in areas 4 and 5, then finding the relative percentages of positive, neutral and negative responses. The percentages are then rounded so the final index reads as three numbers summing to one hundred. Using the data of the sample matrix in Table 3, the DFI is:

\[
\text{Total in area } 4 + 5 = 27 \\
\text{\% positive feedback} = \frac{14}{27} = 52\% \\
\text{\% neutral feedback} = \frac{12}{27} = 45\%
\]
ANALYZING REHEARSAL INTERACTION

% negative feedback = \frac{1}{27} = 0.03\%

DFI = (52, 45, 03)

For this observation session, then, the director's use of feedback established a reinforcement climate nearly balanced between positive and neutral, with very little negative response.

A similar breakdown of area 6 (actor response to director talk) can be made to construct a corresponding Actor Response Index (ARI). The frequency of positive responses is tabulated by dividing the total in area 6 into the sum of entries in columns 10 and 12. Neutral responses are those within area 6 that are tallied in columns 9 and 13. Negative responses are those in column 11. In the example:

Total in area 6 = 23
% positive response = \frac{13}{23} = 57\%
% neutral response = \frac{6}{23} = 26\%
% negative response = \frac{4}{23} = 17\%

ARI = (57, 26, 17)

The interaction in this session was characterized by a high frequency of positive actor response to director influence, while the entries in the neutral and negative areas were nearly the same. Though the totals are obviously too small for generalization, one could say that actors were responding to the director with a relatively high level of idea initiation and positive affect.

Interpretation of Individual Cells

Once the essential characteristics of the interaction are defined through analysis of the comparative loadings in primary areas, individual cells may be selected for a more specific treatment. For example, the entries in the "steady state" cells along the diagonal of the matrix are the only ones which represent continuous talk in any one category; all other cells are transitional, representing a movement
from one category to another. A heavy build-up in
any one of the steady state cells indicates that a
single kind of communication is being used for an ex-
tended segment of the observation period. For ex-
ample, large totals in any of the diagonal cells
(1, 1) through (8, 8) indicates that the director is
deliberate in his communications, taking his time to
explain his ideas, evaluations, or directions in de-
tail. Above average or heavy loading in cells (9, 9)
through (13, 13) reflect a rehearsal session in which
actors are being permitted or actively encouraged to
ask questions, or to express ideas and feelings at
length. These cells have a special importance when
one attempts to relate actor response to director in-
fluence. It is possible, for example, that low
entries in the (2, 2) and (7, 7) cells could reflect
a failure on the part of the director to be specific
in his praise and criticism of actor behavior. Other
cells which merit special attention are those which
relate to:

1. The expression of actor feeling. Entries
in the cells which comprise columns 11 and 12 indicate
which director statements elicit expression of actor
feeling. Also of interest are the cells which contain
all instances of director response to those feelings,
particularly cells (11, 1) and (11, 8). These cells
reflect the extent to which the director is emotion-
ally supportive of the actor who expresses negative
feelings.

2. Special directorial techniques. A direc-
tor who wishes to minimize the possible stress-produc-
ing effects of corrective feedback and criticism may
"balance" such statements by using praise and encour-
agement immediately before or after the correction.
This technique will show up in the (2, 7) and (7, 2)
cells. When employing such preclusive categories as
lecture or giving directions, the director may use
joking to relieve tension, or to reduce the author-
itarian effect of sustained preclusive behavior.
Entries in the (5, 2) and (6, 2) cells reflect this
technique, particularly if area 2 (sustained pre-
clusive influence) is also heavily loaded. The use
of "sideline coaching," a method of supplying immedi-
ate feedback to the actor by praising or encouraging
while the actor continues to stay concentrated in the
ANALYZING REHEARSAL INTERACTION

scene, would be coded by the observer as a 14–2–14 sequence. Hence high entries in cells (14, 2) and (2, 14) indicate the use of this method.

Reliability of OSRIC Data

The above is intended to suggest some possible uses of matrix data, though a conjectural analysis of every cell is hardly advisable. This is particularly true in light of the limitations associated with interaction data of this nature. Among the deficiencies cited by Robert McMurry, there are three of particular relevance to the analysis of OSRIC data:

1) Because the categories are mutually exclusive, it is difficult to trace any but the broadest patterns in the interaction process.

2) Some types of interaction do not occur often enough for meaningful analysis. It is entirely possible cell frequencies that are too low for meaningful interpretation represent the very interactions that are critically important to understanding the sequential patterns that follow.

3) In a design with a small number of categories, little is revealed about the actual qualities of communication. Unfortunately, systems sensitive enough to differentiate on a qualitative level are often impossible to utilize in a field study, due to the large number of categories required. (McMurry, 1972).

As an approach to systematic description of director influence, OSRIC categories are particularly insensitive to variations in modes of lecture and giving of directions, the two most common director verbal behaviors. When these categories were subscripted to distinguish different types of lecture and directives, however, reliability of data diminished sharply. It was hoped from the beginning that the system might be used to code "live" rehearsals, and during a series of dry runs using variations of OSRIC, it was found that observer reliability fell off rapidly when the number of categories exceeded sixteen. Therefore, it seemed advisable to sacrifice sensitivity for accuracy. When the final set of categories was selected, three observers were trained for a period of ten hours using rehearsal tapes and live observa-
A fifteen minute segment of a working rehearsal was selected and coded, and the three "trainees" were asked to code this tape in order to compare their tallies with the "master" code sheet. Using a variation of Scott's coefficient, reliability scores of .71, .76, and .80 were achieved. (Scott, 1955). These figures compare favorably with those reported by researchers using similar category systems.

**Toward a Theory of Rehearsal**

The central task is to develop a set of concepts and methods that will describe what goes on in rehearsal. By systematically investigating relationships between director influence and actor response, we may be able to explain variability in the chain of events, to link single events with what preceded and what followed. We can never, of course, know everything that is going on, but by keeping track of selected events, we are drawn inevitably toward a better understanding of the moment-to-moment relationship between an act of the director and the corresponding reaction of the actor.

In practical terms, such knowledge could aid individual directors in controlling their behavior. We may think we know how a director "should" function in rehearsals, how he "ought" to motivate and control actors, but we need much more than this. To borrow N. L. Gage's "farm analogy," it is obvious that farmers need to know not only how plants grow; they must also master the specific skills of tilling the soil, planting seeds, etc. Similarly, a teacher may understand the importance of motivation and feedback in learning theory, but this does not mean that he knows which precise behaviors will result in the desired pupil response:

It is one thing to say that teachers should find ways to motivate pupils so that the learning tasks have real meaning in terms of the life experiences of the pupils. A different vocabulary is involved when you say that a teacher can connect the interests of students to a learning task by asking open questions, by clarifying and developing selected responses that link interests to
tasks, and then asking questions which become more and more specific so that the tasks and methods of work incorporate the suggestions of pupils. The first statement is a conditional admonition and speaks to a set of intentions. The second literally suggests a pattern of teaching acts, communicates meaning in terms of teaching behavior, and implies a model or strategy. (Flanders, 1970).

We need, then, a theory of rehearsal behavior that will link the specifics of actor/director interaction to desired objectives. We need strategies that will help directors to close the gap between their intentions and their actual performance in rehearsal, rehearsal techniques that may be undertaken with explicit knowledge of their known effects. But first, we must examine the phenomenon in process. We might even have to abate, for a while, our time-honored concerns with evaluating the "quality" or "effectiveness" of the performance product in order to focus attention on what we are really doing prior to opening night. Some initial questions to guide research might include:

1) What are the precise characteristics of director influence and how does it vary through the rehearsal period?

2) What are the relationships among the director's rehearsal methods and a) actors' verbal responses? b) actor stress levels? c) actor attitudes?

3) What behaviors of directors and actors have the greatest impact on the working relationship?

4) To what extent does actor behavior determine the director's choice of rehearsal methods?

5) What is the relationship between a director's intended mode of influence and his actual behavior?

6) To what extent might a knowledge of inter-
action analysis affect abilities of directors and actors to modify their rehearsal behavior?

The answers to these and related questions may suggest some guidelines for a crucial problem in theatre education: How directors and actors may explore various patterns of interaction and discover for themselves which patterns produce the most effective working relationship to achieve the purposes of the rehearsal period.

While it is not possible at this time to link the nature of the rehearsal environment with the quality of the final performance, it is doubtful that a flawed process can create the best possible product. And, if we are to improve the quality of the rehearsal process, we must also improve the methods by which directors and actors acquire the skills, attitudes, and habits they bring to that process. It may well be that the usual practice of teaching acting and directing as separate disciplines is a dubious one. Certainly there is abundant evidence that the rehearsal relationship is typically marred by negative emotions and attitudes; what Stanislavsky termed the "battle and violence" of rehearsals is still very much with us. (Stanislavsky, 1967, pp. 29-30).

But what we need most of all is a commitment to inquiry. How willing are we as directors to have our working methods scrutinized? Presumably, a proven set of relationships between directing methods and actor response would point toward some strategies for minimizing the obstacles to rehearsal work. But for such strategies to have meaning, we must first recognize a need for them.

Editor's Note: This is the first in a series of articles by Robert Porter to be published in Empirical Research in Theatre. All of the articles will focus on the use of interaction analysis as a tool for understanding actor/director transaction and all will be based on his recently completed dissertation. Robert Porter, Interaction Analysis and the Rehearsal Process: Director-Actor Influence and Response, Doctoral Dissertation, University of Michigan, 1973.
References

Robert Porter is Assistant Professor of Drama at Lewis and Clark College, Portland, Oregon.


