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ABSTRACT
                This journal provides a focal point for the
collection and distribution of systematically processed information
about theory and practice in theatre. This issue contains discussions
of (1) the effects of cognitive complexity on characterization depth
and performance; (2) the effects of a director's system of
communication on actor inventiveness and rehearsal atmosphere; (3) an
instrument and a process used to identify musical compositions with
greater accuracy than the written score, to account for interpretive
differences among polished performing artists, and to match artists'
interpretations with fundamental emotional expressions; (4) the
effects of informal drama in influencing the self esteem of
preadolescents; and (5) a programed approach to dialect training for
the actor, Appendixes include an index to the previous five journal
issues and an annotated bibliography on behavioral research in
theatre. (AEA)

# EMPIRICAL RESEARCH IN THEATRE

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Editorial Note:

With Volume 6, No. 1, EXT is back in publication and hopefully
will be able to continue in a regular manner to provide the type of
outlet for empirical research which so many of you have asked for.
This publication will continue if you demonstrate a need for it by:
1) paying for copies (the rise in per issue cost directly reflects our
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articles for consideration. Please help by responding to the last
page of the journal. Your help and encouragement is both appreciated
and necessary.

Briant Hamor Lee

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EDITORIAL POLICY: Empirical Research in Theatre is intended to provide
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THE EFFECTS OF COGNITIVE COMPLEXITY
ON CHARACTERIZATION DEPTH AND PERFORMANCE

William G. Powers, David L. Jorns, and Robert B. Glenn

In the course of a semester, the teacher of a basic acting
course will encounter numerous trials and tribulations. The problem
most often encountered is "How do I teach people the art of creating a
live character?" Many acting teachers take an individualistic intro-
spective approach to creativity while others seek common denominators
of creativity. The latter, while not denying theatre and acting as art,
recognize the educational value of the scientific method in producing
insights into individual differences and their impact upon performance
quality. This study uses the scientific method to assist in determining
to what extent the individual variable of cognitive complexity effects
depth of characterization and performance in the classroom acting
situation.

While the process by which we form impressions of each other
has been widely investigated, that body of literature has not been ap-
plied to the process which an actor utilizes in forming an impression
of a character described in a play and the ultimate impact of that im-
pression on the actor's performance. Cognitive complexity, a dominant
variable in impression formation literature, is concerned with the num-
ber of dimensions utilized for interpreting and assigning meaning to
others. This would appear to be directly related to the actor's task
of developing depth and breadth in a particular character analysis.
Crockett (1965) suggests that a person structures his social world
through a system of personal constructs.

> Perceivers whose cognitive systems differ in complexity
> are expected to form qualitatively different kinds of interper-
> sonal impressions since a perceiver's constructs con-
> stitute the psychological counterparts of the characteristics
> and traits that he attributes to others (Crockett, 1965,
> p. 48).

It has been well established that individuals differ in the complexity
and organization of personal constructs (Delia, 1974, 1976), thereby
differing in the depth and scope of their impressions of others.

Research has further indicated that as cognitive complexity
increases, interpersonal impressions are more extensive or differen-
tiated (Delia, 1974), more organized around motivational attributions
and are characterized by greater evaluative stability (Delia, Clark,
and Switzer, 1974). In addition, high cognitive complex subjects have
demonstrated greater capacity for taking the perspectives of others
(Hale and Delia, 1976). In essence, the highly cognitive complex
person forms more differentiated, abstract and organized impressions of
others (Peevers and Secord, 1973) and has a greater capacity for
perspective-taking (Hale and Delia, 1976; Delia, Clark, and Switzer,
1974). When an actor prepares to perform the role of a particular
character, the ability to form an indepth character analysis composed
of many levels and subdivisions of personal constructs based upon in-
formation provided in the script would seem to be directly related to
the ability to communicate to an audience and to other performers the
depth of that character. On that basis, the following hypotheses were

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generated:

$H_1$:   High cognitive complex actors will develc          
   significantly more depth than low cogni                    .cto

$H_2$:   High cognitive complex actors will be r    _gnificantly          in
   performance evaluations than low cogni      omplex actors

$H_3$:   High cognitive complex actors will be          ignifican:   h_  .er
   in performance evaluations than low c     ..  complex ac

## Methodology

Students enrolled in basic acting c              .stern
university volunteered to participate in this p: :l/ c.  Fr:m che initial
group of 65 actors, 43 completed all phas :s of              Actors
were not informed of the purpose of the s .dy ur              .pletion.

The cognitive complexity of the actors      n: :ssed with the
revised version of the Role Category Questionnaire    :  and Delia,
1976). Reliability and validity indices are substan    , (Horsfall,
1969). Actors were asked to describe in v  :ing a p: son they knew and
liked and a person they knew and disliked.   ·pproxim .ely five minutes
were allowed for each description. The tota. number of psychologically
based constructs used in those descriptions constituted the measure of
cognitive complexity. The number of psychologically based constructs
were coded by two trained assistants. A high intercoder reliability
index ($r = .94$) was indicated. The assistants had no knowledge of the
thrust of the study nor personal knowledge of the individuals involved
as subjects. A median split procedure was used to separate the actors
into categories of high and low cognitive complexity (median = 14; low
cognitive complex $n = 21$; high cognitive complex $n = 22$).

Two weeks later the actors were assigned a character from a
play (Litrack, n.d.) used in the normal course of the class to prepare
for a scene. Following one week of preparation, actors were requested
to write a descriptive character analysis. Approximately five minutes
were allowed. The total number of psychological descriptors of the
character was used to indicate the depth of characterization. Inter-
rater reliability was again high ($r = .87$). On the surface, this ap-
pears to be identical with the method of measuring cognitive complexity.
It is, however, only to the extent of counting the number of psycholog-
ically based constructs used to describe a stimulus individual. A
major difference lies in the form of the stimulus with one being a per-
son who has been interacted with over a period of time and who is
actually known while the other is a fictional person known only through
the descriptions inherently provided by the playwright. Other tech-
niques available to measure such a variable as depth of characteriza-
tion involve qualitative decisions based upon observation of performance.
In this study, a differentiation was desired between cognitive
preparation and actual performance.

Approximately one week later, each person performed the
assigned scene. An expert panel of judges (two theatre faculty members
and one advanced graduate student) rated the quality of each performance

on a scale of 0-9 bound by the adjectives "Bad" and "Excellent" and then
ranked all performances. Tie ranks were not allowed. The average of
the three judges' ratings and rankings was used to indicate performance
evaluations. Judges had no knowledge of the methods or variables of
this project. Specific evaluation criteria were not provided for the
judges. They were allowed to apply their own criteria for creative
quality with the average of the three judges' ratings and rankings used
to indicate the overall reaction to performance quality. As anticipated,
interjudge reliability was not high as desirable, evidencing some dis-
crimination in quality judgments of ratings and rankings. Rating eval-
uations of the three judges were moderately intercorrelated (r = .71,
.68, and .61) yielding an average correlation between judges of .67.
Intercorrelation of ranking evaluations were also moderate ( rho = .73,
.67, and .63) with an average correlation for all three judges of .68.
Difficulties are present when asking judges to rank such a high number
of performances; however, with creative quality judgments being rela-
tively subjective in nature, the effort to increase perspective
outweighed the potential for error.

## Results

Data representing each dependent variable were analysed by
$t$ tests. High cognitive complex actors ($\bar{X} = 8.01$) demonstrated charac-
terizations of significantly more depth ($t = 4.289$; $p < .05$; df = 41)
than low cognitive complex actors ($\bar{X} = 5.49$). High cognitive complex
actors ($\bar{X} = 5.04$) were rated significantly higher in performance quality
($t = 5.052$; $p < .05$; df = 41) than low cognitive complex actors
($\bar{X} = 2.99$). Finally, high cognitive complex actors ($\bar{X} = 16.15$) were
ranked significantly higher in performance quality ($t = 3.743$; $p < .05$;
df = 41) than low cognitive complex actors ($\bar{X} = 27.24$).

On the basis of these results, all three hypotheses were
confirmed.

## Discussion

Levels of cognitive complexity appear to have a differen-
tiated impact upon the student performer's depth of characterization and
initial performance. The degree to which that impact is maintained
following numerous rehearsal periods and constructive criticism from
teacher or directors remains to be uncovered. The actor who auditions
poorly yet ultimately shows the greatest insight into character is a
familiar phenomenon to most directors and one which lies at the very
heart of creativity. A related point is the manner in which an actor
reponds to direction. An actor almost never performs without having
received some direction. Some actors grow considerably without direc-
tion and some do not. The correlation between an actor's growth under
direction and levels of cognitive complexity has yet to be determined.
If high cognitive complex performers bring to the initial rehearsal
more complex characterizations based upon script analysis, are they
also able to perceive deeper characterizations of other characters at
that time and are they able to relate to other characters, as performed
in rehearsal, at deeper levels? If so, it would lead to the conclusion
that they would give better final performances.

Should the observed impact remain, educators may wish to
investigate potential teaching strategies designed to improve a per-
son's ability to develop differentiated and organized impressions.
While cognitive complexity involves one's way of viewing the world and,
as such, is perhaps resistant to dramatic changes in total perspective,
it may be possible to train individuals to acquire perceptual depth in
the specific stimulus field represented by a script and co-actors'
performances.

This research was confined to the educational area and
concerned only the initial characterization performance. Additional
investigation concerning initial (prior to rehearsal) and final (actual
performance) levels of characterization should be undertaken in theatre
environments.

Imagining the resulting performance of a cast composed only
of high cognitive complex performers relative to the performance of a
cast of only low cognitive complex performers leads one to the conclu-
sion that cognitive complexity may be a variable of sufficient impact
to elicit additional investigation.

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# EFFECTS OF DIRECTOR'S SYSTEM OF COMMUNICATION
## ON ACTOR INVENTIVENESS AND REHEARSAL ATMOSPHERE

Suzanne M. Trauth

### Introduction

The nature of the rehearsal process and its underlying
director/actor relationships is becoming an area of crucial concern for
theatre practitioners.  Though the success of the rehearsal process is
often a result of the nature of the relationship established between the
director and the actors, the essence of this relationship remains
largely undefined in the literature of the theatre.  Specific informa-
tion concerning that which contributes to or detracts from this
interaction is lacking and requires further study.

Recent empirical research in theatre (New, 1964; Erb and
Fulton, 1975; Ruble, 1975; Porter, 1973), supported by findings in edu-
cation, management, and small group interaction (Anderson, 1939;
Withall, 1949; Cogan, 1956; Flanders, 1948, 1951, 1963, 1967, 1971;
Katz and Kahn, 1966; Argyris, 1957; Likert, 1961; McGregor, 1960; Blake
and Mouton, 1969; Cartwright and Zander, 1968; Lewin, Lippitt and White,
1939; Lippitt and White, 1960; Fiedler, 1967), suggests that the system
of communication used by the director has a substantial influence on
the nature of the director/actor relationship.  Furthermore, the type of
relationship established between director and actor (teacher/pupil,
supervisor/subordinate, leader/group member) may affect the socio-
emotional atmosphere of the rehearsal and the productivity of the cast.

### The Problem

Most of the research referred to above dichotomized the
director's (teacher's, supervisor's, leader's) behavior into two cate-
gories: 1)that which was democratic, permissive, encouraging actor (stu-
dent, subordinate, group member) participation and initiation of ideas
and feelings, and 2)that which was autocratic, controlling, intended to
restrict actor (student, subordinate, group member) initiation of ideas
and to maintain dependence on the authority figure.  This categorization
accounts for the two dimensions operative in any group situation:  1)
concern for the task and the structure of the task situation, and 2)
concern for the socio-emotional climate and consideration of group mem-
bers.  Given this importance of the type of communication used by the
director throughout the rehearsal period, the present study attempted
to determine if indeed there were measureable differences resulting
from the use of two contrasting systems of communication:  open, parti-
cipatory vs. closed, non-participatory.  This investigation attempted
to determine the effects of each of these systems of communication in
two particular areas:  1) actor involvement and 2) the rehearsal
atmosphere.

### Independent Variables

Two independent variables were manipulated in this
investigation:  1) the system of communication used by the director
(open vs. closed), and 2) two different directors, each using both

systems of communication. Four experimental casts were found:

1) Director A/Open System
2) Director B/Open System
3) Director A/Closed System
4) Director B/Closed System

By referring to the literature mentioned earlier (Anderson, Withall, Lippitt and White, Flanders, Porter, Fiedler, and Likert) a list of appropriate behaviors was compiled for each communication system. In the Open System, the director accepted differences of opinion, indicated approval, accepted and used ideas supplied by members of the cast, and offered information and asked questions to facilitate the individual's problem-solving. During the rehearsal period, decisions were open to discussion and there was group participation and involvement in setting goals and appraising progress.

The director in the Closed System determined details of all activities, lectured and gave directions and orders, demonstrated and provided direct refusals and used self-supporting remarks to sustain or justify her own position or authority. In rehearsals, decisions were less open to discussion and decision-making and goal-setting was done by the director.

The individual directors were included as independent variables since an earlier study (Erb, 1975) suggested that the director might act as an important influence on the acting unit, regardless of the type of communication system used throughout the rehearsal period. Such findings are consonant with the results of previous research in related areas.

Dependent Variables

It was reasoned that the director's system of communication and subsequent director/actor relationships might affect the actor's inventiveness and the work atmosphere in a variety of ways. Consequently, the study explored the effects of each independent variable on a number of dependent measures:

1) Pre-Post Creativity Test to measure growth in creativity as a result of the rehearsal process;

2) Job Description Index was used to measure actor satisfaction with regard to the director, the rehearsal, and other cast members;

3) Group Atmosphere Test used to obtain a semantic description of the rehearsal atmosphere;

4) Problem-Solving Tests used to measure actor inventiveness, the ability to generate ideas, and actor independence;

5) Improvisations coded by means of an Index of Dramatic Behavior also used to measure actor inventiveness by providing a quantitative indication of the complexity of the actors' nonverbal behavior;

6) Post-production interviews with the actors and the directors, and daily journals kept by the actors and the investigator used to gather anecdotal data;

7) A system of interaction analysis (Observational System of Rehearsal Interaction Categories) used to test the degree of director influence and the degree of actor participation.

Though no specific results were hypothesized, previous research suggested that differences in socio-emotional climate and task productivity among the group would appear as a result of the contrasting systems of communication and could be indicated by the dependent measures.

Procedure

This study was conducted within the context of the production of "open scenes," these being a series of highly ambiguous lines of dialogue with no additional information provided in the scenes concerning characterization, situation, and motivation. In the present study, four "open scenes" were used. Each of the four scenes had four characters, and although the characters and situations were different for each scene, the same sequence of lines was used for all four scenes.

The directors were students at Bowling Green State University. One had recently received her Master's degree, and the other was a last quarter Senior. They spent approximately twenty-five contact hours with the investigation learning the theory behind each system of communication and applying the systems to typical rehearsal problems.

Actors participating in the investigation were students drawn from several sections of Introduction to the Theatre at Bowling Green State University who used the'r involvement in the study to satisfy a course requirement in practical theatre participation. Since they were fairly inexperienced actors (a few had some high school experience), the experience variable was consistent throughout the groups. This inexperience, it was believed, might have resulted in their having few rigid expectations of director behavior. Each of the sixteen subjects was cast in one of the scenes, two being directed according to the open system of communication and two directed in the closed system of communication. Subjects were involved in the study for approximately a four-week period including seven rehearsals, a public performance of the scenes, and post-production evaluations of their experience.

During this four-week period, dependent measures were administered on several occasions. Actor response was obtained by use of pencil-and-paper inventories and indices, video-tape recordings of nonverbal acting exercises, group problem-solving activities, verbal interaction analyses, unobtrusive observation and audio recording by the investigator, and post-production interviews with the directors and actors.

The primary difference between casts exposed to the open style of directing and those exposed to the closed style lay in the area of rehearsal decision-making: in the closed system, the director

provided all of the script information with regard to characterization
and motivation and gave the actors specific blocking and stage business;
in the open system the actors, with the encouragement of the director,
made all decisions with regard to the performance of the script.

### Results

A variety of statistical tests were used to assess differences
among the four rehearsal groups, including a multivariate and univariate
analysis of variance and discriminant analysis. The small sample size and
the subsequent lack of statistical power suggest caution in discussion
of the statistical results. Consequently, the analysis of the data was
approached with the intention of detecting patterns and trends suggested
by the results. A further caution: it must be noted that the rehearsal
situations created for the study were somewhat artificial due to the
experimental nature of the investigation. Consequently, one cannot
assume that the behavior of either the directors or the actors would be
the same in a "real" production situation.

1) The results of three administrations of the Job Descrip-
tion Index (Smith, Kendall, and Hulin, 1969) suggested that the casts
of Director A indicated greater satisfaction with the director and less
satisfaction with other cast members, while the casts of Director B in-
dicated less satisfaction with the director and greater satisfaction
with other cast members. There was also the suggestion that cast mem-
bers in both open groups indicated greater satisfaction with the direc-
tor and other cast members than casts in the closed system.

2) Three administrations of the Group Atmosphere Scales
(Fiedler, 1966) suggested that casts experiencing the open system of
communication described the atmosphere as more interesting, accepting
and warm, but less friendly, successful and supportive; the casts of
the closed system, on the other hand, described the atmosphere as more
friendly, successful and supportive, but less interesting, accepting
and warm. Casts of Director A described the rehearsal atmosphere as
more cooperative and supportive and those of Director B as more ac-
cepting and warm. (Both open and closed groups described the rehearsal
atmosphere as cooperative on different administrations of this test.)

3) The results of the three administrations of the Problem-
Solving Tests suggested that the casts of Director A produced more
ideas than those of Director B when solving problems individually with
the director absent. (Actors were requested to produce as many titles
for the scenes as possible.) With the director present, there were a
few quantitative differences among the groups when solving problems as
a group. (Actors were requested to produce as many hypothetical end-
ings for the scenes as possible.) However, the closed casts generated
ideas that were more detailed and well-developed than those produced
by the open groups. Both of Director A's casts were more task-oriented
than Director B's casts when left alone to solve "real" problems
directly related to the production.

4) There were few differences among the groups with regard
to the complexity of the Improvisations performed twice during the
rehearsal period (Lasier, Sutton-Smith, Karioth and Zahn, 1972).

5) The results of the Pre-Post Torrance Tests of Creative
Thinking (Torrance, 1974) suggested that the casts of Director A demon-
strated more originality while those of Director B demonstrated more
flexibility in the course of the rehearsal process.

6) The analysis of the rehearsal interaction matrices
(Porter, 1973) suggested that, indeed, the directors in the open groups
spent more time encouraging actor-initiated work and provided more posi-
tive feedback. In turn, there was more positive actor response and
greater actor participation. Directors in the closed groups spent more
time maintaining actor dependence and director feedback was a combina-
tion of positive and neutral response. Actors responded less positively
and more negatively to the directors. The interaction matrices also
indicated that Director A, in general, spent slightly more time encour-
aging actor-initiated work with both her casts than did Director B with
both her casts. Director A's open cast received no negative feedback
and indicated the most positive actor response of all the groups.

7) The information provided by the daily journals and post-
production interviews suggested that actor response within a single
system will vary depending upon actor expectations of their "role" and
their desire and ability to accept rehearsal responsibility. The degree
to which actors may become independent of the director is a reflection
of the degree to which they are comfortable and successful participating
in the decision-making of the rehearsal process.

Though the open groups spent more time interacting and
communicating as a group, the closed casts spent more time performing
the script. While most of the actors in the open casts consistently
remained "involved" in the rehearsal, actors in the closed groups often
withdrew from the rehearsal when not specifically being directed.

There was a certain degree of frustration in the groups of
both systems: the open casts were frustrated because often they were
not certain how to deal with the amount of freedom they were given; the
closed casts expressed frustration with the lack of opportunity to
participate in the decision-making and with the director's excessive
dominance, though all appreciated the fact that the directors in the
closed groups "knew what they wanted."

Director A felt rewarded by her work with the open group,
somewhat frustrated by the resentment she perceived in the closed group,
and did not feel that actor expectations were a barrier to productive
rehearsals. Director B was frustrated with both her casts: with the
lack of personal contact in the closed cast and with the lack of
rehearsal discipline in the open.

### Discussion

The present investigation was undertaken as a case study and,
at the outset, intended simply to suggest patterns of behavior. "Con-
clusions" reached are indicative of more complex information and much
broader implications. The results of the study do suggest possible re-
lationships between the director's behavior and the actors' responses
and, therefore, deserving of notice.

It is clear that actors are sensitive to the behavior of the director; they are aware of director moods, attitudes (especially toward them), and systems of communication. In addition, actors have definite feelings about the effects of the director's behavior on their work. Like most people, a great amount of responsibility coupled with a great amount of freedom is initially frightening.

Most actors, even inexperienced ones, enter the rehearsal situation with expectations about their role and the director's role in the ensuing rehearsal process. It is important that these expectations be resolved so that all members of the producing group understand what is expected of each.

Though actors will comply with given situational demands (all actors, with the exception of one or two, were cooperative), it is possible that they will conceal frustrations indefinitely. These frustrations may eventually result in hostile or very childish, playful behavior.

Directors, even when cognizant of the particular situation in which they find themselves, may be inaccurate in their perception of actor satisfaction and actor expectations. (Directors were confederates in this study and understood the implications of the use of each system of communication.)

The extreme form of a system of communication or style of direction can be frustrating to both actors and directors. Too much actor responsibility or too little actor participation may result in rehearsal problems.

Conclusions were also reached as a result of 1) differences between systems of communication, and 2) differences between directors.

System of Communication

Some of the differences due to the system of communication are supported by the literature previously reviewed and, therefore, are not unexpected. For example, the indication that casts experiencing the open system expressed greater satisfaction with the director and with other cast members is predictable in terms of Likert's findings. The opportunity to share in the decision-making and actually create the final product themselves was appreciated by many of the members of the open casts, and their satisfaction is understandable.

However, the results of the second measure of socio-emotional climate, the Group Atmosphere Scales, are not so easily interpreted. At one point, the open groups are perceived as more cooperative and interesting, while the closed are viewed as more friendly and successful. At a later date, the open casts are described as more accepting and warm and the closed casts as more cooperative and supportive. Both the Likert and Lippitt and White studies support the notion that an open, participatory environment is perceived by group members as more cooperative, interesting, accepting, and warm. On the other hand, the quantity of work accomplished in a closed, non-participatory environment would, as suggested by Lippitt and White, be described as more successful.

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The difficulty with the Group Atmosphere Scales arises with the results that indicate that the closed casts also view their group as more friendly, supportive, and, at a later date, as more cooperative. It is possible that the measurement of group atmosphere is not the measurement of one dimension but of several dimensions. Actors might be responding to 1) the socio-emotional environment created by the director, 2) the socio-emotional environment created by the members of the cast, or 3) the socio-emotional environment created by work on the task. If such is the case, members of the closed casts might well view their groups as friendly (the cast members) or successful (the task). On the other hand, closed groups might also view the environment as cooperative and supportive if all members of the groups are perceived as "working together" to make progress toward the goal. By the same token, the open groups could perceive the atmosphere as accepting and warm (the director) and still feel that the environment is less cooperative and supportive if progress toward the group goal is unsatisfactory or if the lack of member participation is frustrating.

The results of the Problem-Solving Tests suggested that the closed groups produced ideas that were more well-developed and detailed, might appear contradictory to the notion that a more permissive environment encourages creative expression. Nevertheless, this particular Problem-Solving Test was the first opportunity provided the closed casts to create as a group. Their response to this test might simply have been a reaction to "group freedom." Since the director remained in the room, it is also possible that the closed groups were more task-oriented in the presence of the director.

It was obvious to the investigator that the closed groups spent a greater quantity of time rehearsing the script while the open casts spent more time interacting and communicating as a group. Since there were no tests of the effects of the rehearsal process on the quality of the final product, no assumptions can be made concerning the appropriateness of either style of communication with regard to performance of the scenes. It is possible, though, that the amount of time spent rehearsing the script in the closed groups was the cause of the "tired" and "bored" expressions of the participants.

Finally, it was also obvious to the investigator, as a result of unobtrusive observations, that while open groups tended to remain involved in the rehearsal process throughout the entire rehearsal (possibly because they felt obligated), the closed cast members often psychologically and physically withdrew from the rehearsal process at those times when they specifically were not being directed. It appeared as though open cast members retained a closer contact with the rehearsal process, either by choice or force, while closed members felt less obligated to remain an active part of the process.

Director

Differences among the groups due to particular directors were more apparent than differences due to systems of communication. It is clear that the tools of any type of communication must necessarily be affected by the wielder of those tools. In short, the communicator is as powerful, if not more so, as the manner of communication. As

suggested earlier, research findings in the field of education support
this notion.  The socio-emotional environments of the groups of each
director differed greatly.  While Director A was viewed with more satis-
faction and her casts as less, Director B was perceived in a less than
satisfactory light while the cast members were viewed with greater
satisfaction.  Both of Director B's casts expressed frustration with
some aspect of the rehearsal process:  the open group disliked having to
make all of the decisions necessary for the performance of the scenes;
the closed group felt that the director was far too dominant and was
generally displeased with them.  Director B herself expressed dissatis-
faction with each of the groups.  Consequently, the "dissatisfaction
with director" is certainly understandable.  (This reciprocal "dis-
satisfaction" is reinforced by Miller and Bahs' findings, 1974.)

    It is possible that actor attitude toward the director also
was reflected at the task level in the form of actor inventiveness.
That Director A's casts were more satisfied with the director, produced
a greater quantity of ideas, and were more task-oriented suggests a
possible relationship between actor perception of the director and pro-
ductivity.  The possibility exists that greater satisfaction with the
director, regardless of the directing styles, results in a greater task-
orientation on the part of the actors.  Such a possibility raises the
question of "acting by frustration":  do actors work because of the
director or in spite of him?

    The results of the interactional analysis (Observational
System of Rehearsal Interaction Categories) help to confirm and explain
aforementioned "conclusions."  The suggestion that cast members in open
groups were more satisfied with the director and possibly with other
cast members is supported by the Interaction Analysis Data:  the direc-
tors accepted actor ideas and feelings, actor participation was greater,
and director feedback was primarily positive.  The type of rehearsal
atmosphere indicated by the results of the Interactional Analysis might
well be more "satisfying" for cast members.  Indeed, the actor response
was more positive for the open groups than for the closed.

    Differences among groups resulting from the director may
also be discussed with respect to the Interaction Analysis Data.  The
fact that Director A's casts were more satisfied with the director than
were the casts of Director B parallels the results suggested by this
data:  Director A spent more time encouraging actor-initiated work, her
groups interacted more often and actor response was slightly more posi-
tive.  Some of the dissatisfaction among the actors in Director B's
casts might be due to the fact that she spent less time encouraging
actor-initiated work and a greater amount of time "rehearsing the
scene."

    One other clear difference between the casts of Director A
and those of Director B was with respect to the Problem-Solving Tests:
when left to work on their own, the casts of Director A were more task-
oriented than were those of Director B.  While the casts of Director B
spent more time "rehearsing the script," the casts of Director A spent
more time interacting.  There may be a possible relationship between
the individual's motivation to work on a task and the degree to which
the individual is involved with the process that produced the task.

In other words, if the casts perceived the Problem-Solving exercises as
related to the rehearsal process (either directly or indirectly), the
nature of their involvement or commitment to that process may have
affected their task-orientation with regard to the tests.

These "conclusions" are possible indications of patterns of
relationships between the director and the actors when contrasting
systems of communication are used.  To suggest that either one or another
system of communication is appropriate for all directors, all plays, or
even for all rehearsals within the context of a single production is
obviously impractical.  It appears as though the question of the direc-
tor's style of leadership ought to be answered with the word "flexibil-
ity."  The role that the director must assume in the group and his sub-
sequent system of communication ought to be a response to the demands of
the particular script and to the needs of his particular cast.

It must be remembered that the "actors" participating in the
study were not a representative sample of student actors.  As a result,
their expectations and reactions to the theatrical situation may be mis-
leading.  In addition, the directors themselves may have been a limita-
tion of the study.  Their discomfort with or dislike of either system of
communication might have affected their behavior as would their skill in
the use of one system or the other.

The present study attempted to detect differences in actor
behavior resulting from the director's system of communication.  The
fact that there were more significant differences between the two di-
rectors than there were between the two systems of communication suggests
the greatest limitation of the study:  the degree to which the indivi-
dual director affects or is affected by the particular style of directing
or system of communication he uses is undetermined.  The present study
reinforces the notion that this director/system interaction deserves
investigation.

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MANFRED CLYNES' SENTOGRAPHY
AS A POTENTIAL MEASURE OF THEATRE ARTS

George Caldwell


In reference to artistic works as visual stimuli, J. J.
Gibson (1966, p.224) suggests that "structured light by artifice" can
be perceived on two levels. Art is seen as an object and as an image,
but not necessarily restricted to one or the other. Not only does an
artistic display transmit information about the material of which it is
constructed, such as oil paint, clay, or marble; but also information is
conveyed about the original stimulus the image represents. However, the
image is an attempt to have the beholder see what the artist has seen;
therefore, the information in the image is altered or modified from the
orignial source. Thus, art involves not only the rendering of an outer
world but also of an inner world of the artist. Even less explicit
images as those found in nonrepresentational art manage to convey feelings
and moods to the viewer. The communication of the artist's inner world
has come to be called by most authorities, expression. Rudolf Arnheim
explains:

> Every work of art must express something. This means, first
> of all, that the content of the work must go beyond the
> presentation of the individual objects of which it consists.
> But such a definition is too large for our purpose. It
> broadens the notion of "expression" to include any kind of
> communication. True, we commonly say, for example, that a
> man "expresses his opinion." Yet artistic expression seems
> to be something more specific. It requires that the communi-
> cation of the data produce an "experience," the active
> presence of the forces that make up the perceived pattern.
> How is such an experience achieved? (1954, p.360)

How is such an experience achieved? Though Arnheim's
question is only generally theoretical, his attempted answer does begin
to touch on perceptual matters currently under scientific investigation.
Arnheim reminds us that neither is the weeping willow inherently sad,
nor does the spectator transfer to the tree his/her own personal sadness.
The willow's very shape, direction, and flexibility convey to the on-
looker an expression of passive melancholy. Further, these elements are
not restricted to the cultural understanding of any single perceiver.
Often visual expressions are shared consistently by the majority, lend-
ing credence to the ethereal term, "universality." Of this Arnheim
states:

> To define visual expression as a reflection of individual
> human feelings would seem to be misleading on two counts:
> first, because it makes us ignore the fact that expression
> has its origin in the perceived pattern and in the reaction
> of the brain field of vision to this pattern; second, be-
> cause such a description unduly limits the range of what is
> being expressed. (1954, p.368)

Although the example of the weeping willow is derived from nature, the
artist knows how to manipulate the same potentially expressive elements
that he/she feels the viewers similarly understand, thus expanding and
enhancing the image of the willow.

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Arnheim's notion is certainly not unique.  Art is commonly
believed to be communicative of inner expression to humanity at large.
Only until recently, however, has any precision in the description of
that communication been achieved.

Manfred Clynes has developed an instrument and process by
which to identify musical compositions with greater accuracy than the
written score, to account for interpretive differences among polished
performing artists and to match artists' interpretations with fundamen-
tal emotional expressions.

To begin his descriptive refinement, Clynes concerned himself
with what he has termed "idiologs" (1969, p.184).  These are concept
words, such as "red" or "sweet," which involve an element of imagination.
They can be created in a moment and have physiologic brain concomitants.
In other words, idiologs produce neurological responses manifested in
some exterior behavior.  In the past, various mental categories such as
"feeling" had been considered by Clynes as vaguely defined, and he
attempted to alleviate such inadequate descriptive methods by the inves-
tigation of idiolog responses.  The analysis of idiologs offered the
opportunity to identify the various shades of feeling, to consider how
responses communicate nonverbally, and to ascertain the amount of under-
lying precision of communicative responses (1969, p.184).

Clynes found that many physical responses to idiologs had
clear beginnings and endings and remained consistently similar in spatio-
temporal measurement--eye pupil contractions to color illumination and
change, for example.  Other responses include those of the finger, limb,
and facial musculature.  Considering both the short interval of time be-
tween the stimulus and response and the predictability of the response,
Clynes determined that the movements were preprogrammed.  He called
these clear-cut voluntary movements of 2-3 seconds duration "actions"
(1969, p.190).  The actions encompass the action idiolog and its execu-
tion.  Clynes also discovered that once an action had begun, it could
not be stopped or reversed.  It literally must run its course.  During
the action there is a "command" decision and an execution of the command
involving accurate programming.  For the action to be satisfactory there
must be a clear idea (action idiolog) and an accurate response (1969,
p.190).  The implication, of course, is the existence of a precise
response capable of measurement.

Clynes categorized human motion into two basic types:  1) a
response to the changing material world; and 2) a response to an inner
state (1969, p.190).  The latter is found in artistic communication and
is applicable to the expression of the artist.  As with other actions,
these expressive actions--E-actions (1973, p.65)--have a beginning and
an end.  Similarly, sincere E-actions follow programmed commands, seeking
the expression of their action idiolog.  The process of evoking an
idiolog, or fantasized emotion (1971), is called "elogizing" (1973,
pp.106-7).  The condition itself is known as a "sentic state" ( 1969,
p.357)--the state of inner emotion or feeling.  A succession of sentic
states is referred to as a "sentic cycle."  A cycle may consist of
eight or ten sentic states within a half an hour period (1969, p.357).
Just as general bodily gestures are often consistent with certain
feelings (anger, for example, as frequently practiced by students of

acting), so do minute movements--E-actions--maintain a reliable pattern.
According to Clynes, the spatio-temporal output of the action results
in an "essentic form." Its shape is precisely pre-programmed according
to its original sentic state and is subject to accurate measurement
with appropriate instrumentation.

Clynes' precise method of describing graphically and
statistically inner spatio-temporal expressions appears much more ac-
curate than can be found within the limitations of verbal language. His
method seems appropriate for the empirical analysis of artistic endeavors
of all types. However, for a further explanation concerning the appli-
cation of the measurement of essentic forms to art, and especially
theatre arts, it seems to review the evolution of Clynes' experimentation.

In a series of tests with pupil diameter reflex measurements,
Clynes traced the information flow from an exterior stimulus to the brain,
to a behavioral response (action). He dispelled from the beginning any
notion of opposite information traveling to the brain, for perception of
opposites requires two channels. This single channel information flow
Clynes called "undirectional rate sensitivity." In studying pupil reflex,
Clynes found that a response cannot be canceled out by so-called opposite
changes in stimuli, but rather opposing stimuli tend to reinforce each
other. As Clynes illustrates, $2 + 4 = 4$ and $2 - 2 = 4$ (1961, p.966).
For example, a light flash on the right eye, and a dark flash on the left
eye simultaneously does not render the pupils motionless. On the con-
trary, both contract.

To further clarify opposing stimuli (idiologs) in another
experiment involving pupil reflex, Clynes discovered evidence suggesting
three limitations to rate sensitivity: 1) response is not negative but
has a lower limit of zero; 2) information transmission is in one direc-
tion only; and 3) receptors and nerves can fire only positive frequen-
cies (1962, p.838). In other words, there is no negative in any communi--
cative channel; actions do not simultaneously work against each cther.
Further, in some sensory cases such as smell, there are no opposing
channels. Clynes also found that interrupted stimulation (of light)
with the same intensity produces greater responses (1961, p.966). This
is an early but vague indication that as stimuli intensities change, so
do the channels. The importance of such an issue in terms of measuring
expression is that the isolation of a single idiolog in a single com-
municative channel in turn means an accurate description of the entire
action from beginning to end.

In a recent study (Kohn and Clynes, 1969, pp.943-9), Clynes
brought out more information concerning channel shifts in relation to
stimulus change. He described an increase in response as an "on" re-
sponse and a decrease as an "off" response. In dealing with color as
the central stimuli and change in intensity, hue, and placement as the
variables, Clynes reached the following series of findings:

1)   color change evokes an "on" response, regardless of the
     intensity;

2)   change in intensity results in an "on" increase and an "off"
     decrease proportionally, regardless of color, suggesting
     again different degrees of response;

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3) change in stimulus pattern without a change in intensity or
   color produces an "on" response (design evokes response re-
   gardless of its simplicity or complexity in relation to its
   preceding design):

4) stimulus intensity produces an "on" response;

5) background intensity produces an "on" response;

6) background and stimulus color interchange produces "on" respon-
   ses but not of identical response shapes;

7) separate color channels are individually, unidirectionally
   sensitive.

All of the above suggests a different channel for each
response; i.e., different shades of red are perceived by different re-
ceptors, transmitted in different channels to different neural areas,
evoking different responses; thus, the "on"/"off" effect in single
channels.

Measuring the brain itself, Clynes' investigation used a
circular array of eight scalp electrodes to measure spatially evoked
potential responses at various points in the occipital region of the
brain. The experiment used changing light intensities as the stimuli,
and it was found that different intensities are registered in different
areas of the brain (Clynes, Kohn, and Lifshitz, 1964, p.494); clear
indication of the "on"/"off" channel shifts.

Further, in a similar experiment, Clynes found the patterns
or electrode configurations produced by the evoked potentials not to be
idiosyncratic to individuals but to follow a definite sameness among
eight adult males (1969, p.654). In a report of the same study, Clynes
offers a concise summation of his conclusion on the brain's use of
channel shifts:

> We may draw a parallel between muscle systems and channels
> of communication and control. There are systems of muscles
> that require two opposing muscles for motions in both direc-
> tions, since muscles can only pull but not push; other muscles,
> like those lining the intestines, need to function only in one
> direction. Similarly, some communication and control systems
> have developed a two-channel rein control, whereas other systems
> can function satisfactorily with single-channel information.
> The term "rein control" is derived from the configuration of
> the reins of a horse: information about the polarity of change
> is received from the spatial location of the channel, and the
> informing action of each channel is similar. . . .Because of
> unidirectional dynamic sensitivity and the symmetry of rein
> control, there is no possibility of cancellation of action,
> and events are not immediately "forgotten." For example, with
> the sense of touch, removal does not cancel the sensation, even
> of a short, momentary touch. Without unidirectional rate sen-
> sitivity, the rapid removal (or negative deformation) would

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cancel a great part of the stimulus, and the organism would
not know that it had touched something or had been touched
(1969, p.654).

Clynes suggests that each area of the brain is able to produce
a predictable evoked potential, because it is genetically preprogrammed,
similar to the biological programs found in the DNA. He takes his step
into the realm of artistic expression preprogramming by a series of ex-
perimentations with music through the use of touch transducers. In
keeping with his previous theory that minute movements represent pro-
grammed inner expression (essentic forms), Clynes developed an apparatus,
a sentograph--a transducer coupled with a computerized system,[1] that
employs a button pressed by the index finger which tracks the finger's
movements both vertically and horizontally, in space and in time (usually
two seconds). Subjects were given a series of emotionally expressive
idiologs and asked to respond by pressing the button. The process was
strenuously repeated and averages were taken. The graphed configurations
were considered the essentic forms. The forms were then correlated
among individuals, and the results were incredibly high (Clynes and
Milsum, 1970, p.334).

Clynes concluded the following:

1) there are sentic states;
2) the sentic state is composed of a number of protosentic
   (original) states in various combinations;
3) there are only a small number of proto-sentic states;
4) to each sentic state there corresponds a "true" ortho-
   sentic form;
5) the essentic forms are biologically programmed and genetically
   preserved;
6) essentic form acts as a communication in the degree of
   precision with which it conforms to the ortho-essentic
   form. . .;
7) we communicate feelings with others through their recognition
   of essentic forms;
8) sentic states can be self-generating through the essentic form
   production (Clynes and Milsum, 1970, p.335).

Clynes then applied the same principle and apparatus to
music. He had unquestionably polished performers (e.g., Casals and
Serkin) review a variety of musical pieces while responding on the fin-
ger transducers. Among all of the musicians, obviously similar essentic
forms emerged for particular composers. Concise differences were found
between some commonly grouped composers, such as Dubussy and Ravel,
Waggner and Tchaikovsky. The essentic forms appeared to be more
descriptive and precise than the standard musical notations.

Clynes also points to aesthetic similarities of ortho-essentic
forms to the visual arts. He compares the form of "love" to the rounded

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[1]Manufactured by Human Environments Research, Inc., N.Y.  Infor-
mation available:  Manfred Clynes, Biocybernetics Institute, Palisades,
N.Y.  10964.

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lines of Picasso's Mother and Child and the form of "sex" to the pointed
angles in Picasso's graphic, Pan; however, he has not experimentally
tested such a notion.  Indeed, this is where Clynes' empirical investi-
gation of art ends, and this is where I suggest it should start.

Application of Manfred Clynes' measure of sentic states to
the investigation of theatre arts seems limitless.  Through analysis of
subject reactions to color, Clynes has already shown the capability of
sentography in registering sentic responses to visual environment; in-
deed, artificial environment (1973, p.120).  Certainly, sentography
could function as an appropriate tool in the measurement of responses to
other elements of design, such as line or form, since they, too, in
theory and practice are frequently attributed to similar powers of emo-
tional arousal.  If sentography can measure responses to stimuli as com-
plex as a symphonic musical composition, then perhaps audience sentic
responses to theatrical settings can be tapped.  Indeed, through compari-
son of essentic forms, determination of the most dominant, i.e., influ-
ential, design elements in a variety of stage settings might be attained.
It may be possible to assign statistically certain qualities of design
elements to specific theatrical styles and historical periods, as critics
have theoretically done in the past.  But the notion of sentographic
measure is not restricted to audiences and stage settings.

Sentography offers potential in the area of cast and director
relationships.  An accurate statistical account of actor interpretation
of character, script, and production seems plausible.  Perhaps the degree
of compatability between sentic states/cycles of director and cast is
associated with other independent variables--mode of directional style,
success of cast/director interaction, quality of performance.

In a recent study, Clynes examined individuals' sentographic
responses to other suggested individuals and compared the essentic forms
with those of emotion (1972, p.16).  He found that when the two sets of
forms were matched, they constituted a "personal relationship profile
(PRP)" (1973, p.121).  For example, in a typical instance, the sentogram
for "father" was seen by a subject to the essentic form of love; the form
for President Nixon was similar to the form of anger; Woman 3, sex; and
so-on (1973, pp.122-23).  The results of the study suggest that sento-
graphy may be quite sensitive to audience reactions to characters in
plays as well as named person-concepts.  In addition, Clynes states, "the
sentographic profile is stable--it appears to change only when the rela-
tionship changes" (1972, p.16).  The greatest advantage of sentography
may be its temporal aspect; quite plausibly the changes in audience emo-
tional responses to characters at specific moments during the performance
may be recorded.  As the live production develops, as the characters
develop, so should the development be reflected in the PRP of the
spectators.

With regard to training and experience, a precise distinction,
if any exists, could be made among the expert and non-expert audience
members.  Clynes suggests that in terms of artistic expression, there is
no naive perceiver, but thus far his experimentation of art has been
limited to the expert who is trained in the understandings of expressive
processes.

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## Conclusion

Though the brain does seem to have compartmentalized programs, there is still little evidence that these programs are not culturally rather than genetically founded. At the close of a chapter on sentic states, Clynes himself admits the following:

Assuming we know the inherent communicative shape of, say, love, as measured and identified by our method of measurement, we may ask a new question, namely why love, as expressed, has this particular shape--i.e., why is love experienced and evoked through these forms?

To this question we have no answer, and it is difficult to know how to consider the question. Why does anger have the form it does? True, there is clearly a tendency for anger to push away--to reject--and for love to enfold, and the essentic forms we obtain reflect such movements. But the problem is that not all outward movement expresses anger-- there is a pure form of anger as there is for love. We shall have to be content at this time to ascertain the essentic forms of love, sex, anger, etc., and derive satisfaction from knowing that we are dealing with forms independent of particular physical realizations (1969, p.205).

Regardless of the origin of sentic states, sentography still seems a promising tool to measure the expressive qualities of theatre arts. Essentic forms are not confined by the structure of verbal language. And, unlike the paper-and-pencil dependent variable, the transducer measures responses in time, registering changes in reaction and providing an opportunity to test audiences during performances unencumbered by meddlesome gadgetry. Sentographic measure is apparently sensitive to responses involving a number of concepts which are found in theatre: visual, auditory, interpersonal.

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THE EFFECTS OF DOROTHY HEATHCOTE'S INFORMAL DRAMA IN
INFLUENCING SELF ESTEEM OF PRE-ADOLESCENTS

Pam Woody Barragar


How an individual views him/herself appears basic to
understanding that individual. Increasingly, educators are becoming
concerned with the importance of self-esteem in the effective functioning
of an individual. Self-esteem refers to an individual's self-judgment.
In self-evaluation, the individual examines his/her capabilities and
attributes according to personal standards and values and arrives at a
decision of self worth in positive or negative terms. He or she may
employ positive terms to refer to characteristics perceived desirable
(e.g., "friendly," "good," "kind"), or he/she may use negative terms to
indicate characteristics which are considered socially undesirable (e.g.,
"bad," "dirty").

The major purpose of this study is to determine the effect
of Dorothy Heathcote's informal drama methodology (referred to as
ENCOUNTER) in influencing self-esteem of pre-adolescents. Secondary
purposes are (a) to determine the effect of a formal drama approach
(PLAYS) in influencing self-esteem and (b) to compare the effect of EN-
COUNTER and PLAYS in influencing self-esteem. The following hypotheses
are proposed.

Hypothesis 1 (Principal Hypothesis): After having participated in EN-
    COUNTER, children will score higher on self-esteem measures than
    children not so exposed.

Hypothesis 2: After having participated in PLAYS, children will score
    higher on self-esteem measures than children not so exposed.

Hypothesis 3: After having participated in ENCOUNTER, children will
    score higher on self-esteem measures than children who have
    participated in PLAYS.

Heathcote's Philosophy and Method

Formal and Informal Drama

Heathcote categorizes approaches to drama as formal and
informal. Formal drama is a structured, teacher-centered approach in
which the teacher knows in advance what he/she wants to happen. Because
the learning of the class begins with what the teacher knows, formal
drama efficiently covers a volume of material quickly, allowing the
teacher to impose him/herself between the fact and the material (e.g.,
"I will guide you"). Formal drama tends to lead the energies of the
participants toward a finished product (a play) while growth of an indi-
vidual child is sometimes pushed into the background. Heathcote says
that "formal drama provides a comforting screen which doesn't expose the
teacher too often to the real thinking of the class" (Dorothy Heathcote
Talks to Teachers, n.d.).

Informal drama is a person-centered approach to drama in
which the teacher does not know in advance what is going to happen. The
learning of the class begins with what the participant wants to know and

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explore.  The teacher's expertise is concealed so as to allow the
participants' expertise to function.  Their knowledge of people, rather
than knowledge of things and skills, is brought forth in solving problems
through role playing.  According to Heathcote, such role playing experi-
ences function as a tool to uncover "prejudice" and "pinpoint attitudes"
(Dorothy Heathcote Talks to Teachers, n.d.).

> I define educational drama (informal) as being anything which
> involves persons in active role-taking situations in which
> attitudes not characters are the chief concern, lived at
> life-rate (i.e., discovery at this moment, not memory based)
> and obeying the natural laws of the medium . . . available
> to the group at the present moment and any conjecture of
> imagination they are capable of, in an attempt to create
> living pictures of life, which aim at surprise and discovery
> for the participants rather than for any onlookers.  The
> scope of this is to be defined and contained by the story
> line and theme, so that the problem with which they grapple
> is clearly defined (1970, p.1).

The Teacher

        Heathcote defines the teacher as "one who creates learning
situations for others" (1970, p.1).  The teacher's energies and skills
are at the service of his/her pupils during the professional situation.
The relationship of the teacher offering experience to the participants,
and in turn they offer to the teacher their fresh way of looking at
things offers two advantages:  1) it frees the participant to reveal
his/her true feelings instead of assuming qualities he/she thinks the
teacher expects, and 2) it offers the teacher a freedom which cannot
possibly be obtained in the role of the "all knowing."  Because both
teacher and student recognize the strength of the other in this situa-
tion, students are seldom rude or lack class discipline.  According to
Heathcote, this relationship "produces trust, self-knowledge, caring for
others, integrity, and an ability to respond freshly to each situation
("Institute of Education," 1971, p.5).

Techniques

        The following techniques form the basis of Heathcote's
Informal Drama Method and the Encounter Program.

        On-Going Drama.  On-going drama is defined as improvisational
drama continuing from session to session involving the entire group at
one time.  The on-going drama is based on a subject decided upon by the
group (e.g., California goldrush).  The drama often begins with the
teacher taking a role and motivating participants to join him/her in
related roles.  In role, the teacher keeps the drama moving, motivates
the participants, and maintains control.  Heathcote says that "on-going
drama is defined and contained by the story line and theme so that the
problem grappled with is clearly defined" (1970, p.1).

        Problem Solving.  Every on-going drama is based on a central
problem or conflict.  When drama is reduced to its simplest principle,
one will find mainly the representation of a fight, a conflict of some

sort.  It is essential that the participants perceive the principle of
conflict by learning how to act an objective in relation to an opposing
or different objective acted by another.  Heathcote maintains that
"problem solving is the basis of learning and maturation" (1970, p.1).
For example, in an on-going drama about primitive tribes, Heathcote
entered the scene "in role" as a visitor from a neighboring tribe and
accused the chief of breaking the peace treaty by allowing his braves
to shoot poisonous arrows.  The problem introduced by Heathcote raised
questions involving moral dilemmas which were left for the tribe to
solve.

          Because on-going drama normally involves the entire class, a
wide variety of attitudes and responses are available in finding solu-
tions to problems.  As individuals share responses to problems found in
the drama, an increasing appreciation of the scope and variety of ways
to solve problems becomes apparent to the class.

          The Role.  Heathcote often continues a drama by staying in
the situation through playing a role.  She finds that by being "threat-
ening" in her drama role and "unthreatening" in the teacher role she is
able to achieve a more open relationship with her class.

     One of the great advantages of role-taking is that it
     removes the pressure of hierarchy and the need either
     for the teacher to be unduly respected or deferred to.  It
     removes the need to "put the teacher first" and allows a
     real exchange of ideas to take place with ease and spontaneity.
     It also allows the teacher not only to challenge the views
     and behaviour of the class without the "authority" position
     being assumed by using the "opinion" one strongly, but also
     it allows the teacher to "feed" the class with a precision
     never achieved from an outside position of authority ("The
     Art of Teaching," 1971, p.1).

Heathcote uses the role to "focus, evaluate, organize, present alterna-
tives, and test disposition, affection, and feelings."  ("The Art of
Teaching," 1971, p.1).

          Questioning.  Heathcote uses questioning to challenge, to
cause a decision, to up-grade, to support class elaboration, to re-
challenge, and to narrow the theme.  Heathcote's questions may be stated
explicitly or non-verbally, or they may be phrased as statements, but in
each case a specific purpose is intended.

| Purpose | Example |
|---|---|
| Commit the group to action | Can you check behind the barrels now? |
| Requesting information | Can you draw a silencer for us? |
| To offer alternatives | A play about helping people in trouble or just people in trouble? |
| To divide the group | Can girls understand these things better than boys? |

Questions keep the participants constantly challenged and discovering
new insights.

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The Brotherhoods Code. Heathcote defines "brotherhoods" as those experiences which are common to all people. Heathcote uses brotherhoods as a classification system and as a technique to extend the area of reference of her class. When confronted with ideas from the class, she mentally reviews how these suggestions may be commom to all people (e.g., brotherhood of all who have suffered pain). This analysis gives her an opportunity to place or categorize the significant aspect of any work and to relate many apparently unrelated sources of material to each other. The brotherhood's code gives her a classification system from which she can formulate questions and focus thinking.

Symbols. In on-going drama it is essential that the teacher "focus factual material and experiences of individuals quickly in order to get drama moving" ("The Art of Teaching," 1971, p.16). Heathcote believes that certain "universal" symbols have the power to unite peoples' thinking without inhibiting their personal and unique contributions.

> A . . . point of significance I should like to make is the importance of the choice of symbols a teacher elects to use in a drama situation. Experiences can rarely be captured in words. When a teacher, therefore, expects group experiences to arise, some aids to everyone being at least on the same track or in the same experience are necessary. In drama the use of the symbol seems to be of primary importance ("The Art of Teaching," 1971, p.16).

The importance of this area for the teacher using drama lies in the fact that in the beginning the symbols create a focus, that is, a way of uniting the student's experiences.

The Press. Heathcote defines a "press" as "encouragement to embrace a newer view and maturing vision and to use new resources" (Hardy, 1972, p.253). An important part of the teacher's job, Heathcote contends, is to introduce presses of various kinds to ensure that the class is constantly extending themselves. That is, when one conflict within the drama is resolved, a newer more maturing vision is sought. If a class is always working in a comfortable area, they never have a chance to grow and develop. Heathcote gives the example of a "stone age drama" to illustrate the technique of the press:

> In the stone age situation I hinted by my own use of words, at a more deliberate unlinguistic style. If a class accepts it I press further and perhaps introduce a more difficult vocabulary or an insistence upon more subtle verbal style. This demands constant and unfailing attention from the teacher and the rewards lie in being glad for the children when they succeed rather than pleased with oneself for having led the class so well ("The Art of Teaching, 1971, p.6).

To introduce presses the teacher must plan in advance and develop skill in deciding the most relevant press. Heathcote emphasizes that the teacher must be careful in the selection of the press to insure that all participants will be capable of successfully completing it.

If the press is accepted and assumed by the group, Heathcote introduces more subtle and difficult tasks. If she observes no response to the press, she realizes that her judgment was either wrong or mistimed. In that case, she waits for another opportunity. The same chance and circumstances never occur twice. Consequently, the press will be introduced differently the next time.

Rituals and Repetition. Rituals and repetitions are used by Heathcote in on-going drama to unify the group and commit them to the drama. Heathcote claims that "most drama goes too fast." Developing a ritual (e.g., hanging up clothes the same way every morning) or a repetition (e.g., saying the same phrase over and over) helps the group gain assurance in their roles in the drama. One of Heathcote's elementary school classes decided that they wanted to make up a drama about wagon trains. Heathcote took the role as "mother" of all the children. At the beginning of each class, Heathcote greeted the children in her mother role and in lved them in breakfast-fixing tasks (e.g., stirring batter for pancak  bringing wood for the fire). Each session the breakfast-making    ne was repeated until a ritual was set. Heathcote contended that the ritual of making breakfast helped commit and involve the children in the drama.

Tangibles. Tangibles consist of "real," as opposed to "imaginary," objects which may be used "in the drama" (e.g., blanket for bed) or "out of the drama" (e.g., blackboard). By incorporating actual objects into the drama, the participants' "belief" in the drama is strengthened. Heathcote uses tangibles out of the drama to help focus attitudes and feelings. In a covered wagon scene, for example, Heathcote stopped the drama and asked the children to draw the objects that were inside the wagon. Heathcote resumed the drama as the cut-out objects were carried onto the covered wagon by the children. In another episo  of the covered wagon scene, Heathcote stopped the drama and asked each child for the name and birthdate of the character he was playing in the drama.

Task Force. Task force is defined by Heathcote as a project which helps all the participants in the group to crystallize and focus on concepts generated from the on-going drama. Creating a book of personal reflections, designing a mural or developing an informal presentation are all examples of the task force.

## Methodology

The Sample

Subjects for this study were drawn from The Aucilla School in Monticello, Florida. The school contains one or more classes for each grade level (i.e., first grade through high school); high, middle, and low socioeconomic classes are represented. Data were collected from fifty-four sixth and seventh grade students who were randomly assigned to two Drama Treatment groups (ENCOUNTER, PLAYS) and two Pure Control groups (MAIN CONTROL and SECONDARY CONTROL). Sexes and grades were represented in similar proportions in all groups.

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Independent Variable

Two Drama Treatments and two Control groups were used.  Drama
Treatment One was ENCOUNTER and Drama Treatment Two, PLAYS.  Control
groups were referred to as MAIN CONTROL and SECONDARY CONTROL.

Drama Treatment One (ENCOUNTER).  ENCOUNTER was composed of
thirty, 45 minute sessions which followed regular period scheduling.  Sub-
ject matter and themes were taken from Bible stories of the Prodigal Son,
the Good Samaritan, the Publican and the Pharisee, and the Parable of the
Talents.  Heathcote's informal drama techniques formed the basis of the
program.  Participants took part in on-going dramas, improvisational
role playing and dramatization.  In a typical daily lesson,  the proce-
dure might consist of the following developments:

> As students enter the room they are drawn quickly into an on-
> going drama by the teacher in role.  The drama develops slowly
> as the participants discover insights and decide between several
> alternatives which direction the drama should go.  The teacher
> comes out of his role for short periods of time to focus
> attitudes by questioning.

Drama Treatment Two (PLAYS).  PLAYS was comprised of thirty,
45 minute sessions paralleling the ENCOUNTER program in subject matter
and themes.  Students read plays, wrote reports, filled in papers, dis-
cussed and analyzed plays, and did play readings.  A sample lesson
might have included:

> The teacher introduces a play and talks about the main
> themes and conflicts.  Each class member is assigned
> a part and the play is read aloud.  Discussion in which
> the teacher asks questions about the characters follows.

Control Groups.  Two control groups, referred to as MAIN
CONTROL and SECONDARY CONTROL, were used in this study to control for
effects of testing and pre-test sensitization.

Dependent Variables

Two testing instruments, each defining self-esteem differently,
were used in the study.

The Self-Esteem Inventory (SEI).  The SEI, developed by
Coopersmith, measures qualities of self-esteem pertinent to this study
and has shown high reliability and validity (Coopersmith, 1967).  The
SEI contains 58 items and takes an estimated twenty minutes to complete.
It is self-administered, requiring the subject to circle either "like
me" or "unlike me" in response to each of the items, which are in the
form of descriptive statements about self.  The statements are worded
especially for older elementary-aged children.

Children's Self-Concept Scale (CSCS).  Developed by Piers
and Harris, the CSCS consists of 80 simple declarative sentences (e.g.,
"I am a happy person").  At least half of the sentences are negative in

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content (e.g., "I behave badly at home").  In response to these statements the child circles "yes" or "no."  The test is administered in approximately thirty minutes and is designed for children in grades three through twelve (Piers, 1969).

The Piers-Harris test represents a more general measure of self-concept which includes self-esteem, while the Coopersmith instrument concerns only the evaluative dimension generally termed self-esteem.

Procedures

One teacher well versed in Heathcote's methodology served as the drama leader for both programs.  Three qualified Teaching Assistants were also employed to rotate and work equal time with the two Drama Treatment groups.  The Assistants differed from each other and from the Drama Teacher in personality, background and approach.  The children responded differently to the Assistants and Teacher.  Since responses of the children were expected to reflect both raised and lowered self-esteem, bias should have been reduced.

Prior to the first meeting of ENCOUNTER or PLAYS, the classroom teachers announced that a drama program was going to start in the school.  In a purposely short and vague announcement, the teachers indicated that not everyone could participate in the program during the fall but that possibly in the future they could.  The teachers read the names of the children who would be participating in the program and said that their names had been drawn out of a hat.  The meeting times and locations were announced at that time and randomized.

A test booklet consisting of the Self-Esteem Inventory and the Children's Self-Concept Scale were administered to the two Drama Treatment groups (ENCOUNTER and PLAYS) and MAIN CONTROL group prior to and following the drama programs.  The books appeared similar to other standardized tests periodically administered in the school.  The SECONDARY CONTROL was given a masked questionnaire taking the same amount of time.

Results

Simple analyses of variance were employed to determine the extent of any pre- and post-test differences on the self-esteem measures. Hypotheses were tested at the .05 level of confidence.

Coopersmith Measure

The analysis of variance revealed that the three groups (ENCOUNTER, PLAYS, and MAIN CONTROL) were significantly different from each other on the Coopersmith Measure yielding a significant F ratio (F = 3.73; df = 2.37; p < .05).  Table 1 presents the Source of Variance Table for the Coopersmith Measure.

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TABLE 1

ANALYSIS OF VARIANCE
SELF-ESTEEM INVENTORY (COOPERSMITH)

| Source of Variance | SS | df | MS | F |
|---|---|---|---|---|
| Between | 267.10 | 2 | 133.55 | 3.73 |
| Within | 1326.40 | 37 | 35.85 | -- |
| Total | 593.50 | 39 | | |

The Principal Hypothesis of this study predicted that subjects participating in Drama Treatment One (ENCOUNTER) would increase in self-esteem more than those in the MAIN CONTROL group. Results of the t-tests were significant ($t = 2.24$; $df = 25$; $p < .05$). The direction of the difference indicated that the ENCOUNTER group showed significantly more positive change in self-esteem than the group receiving no drama at all (MAIN CONTROL). The mean change for the ENCOUNTER group was +5.29, while mean change for the MAIN CONTROL group was -0.46.

Hypotheses two and three predicted the ENCOUNTER would show a greater change toward positive self-esteem than PLAYS and that PLAYS would show a greater change than the MAIN CONTROL. Neither of the selected comparisons was significant at the .05 level. The mean change for PLAYS was +4.79, while the mean change for the MAIN CONTROL was -0.46.

Piers-Harris Measure

The same hypotheses were tested for the CSCS Measure. A simple one-way analysis of variance was computed to compare mean changes among the three groups. The resulting F ratio was not significant; therefore, no selected comparisons could be legitimately computed. The mean changes for CSCS were: ENCOUNTER, +3.21; PLAYS, +2.69; and MAIN CONTROL, +0.08. As can be seen, means were in the predicted direction, but significance at the .05 level was not reached.

Conclusions

Hypothesis One (Principal Hypothesis), which predicted that children receiving the ENCOUNTER program would score higher on self-esteem measures than children receiving no drama instruction, was supported (p < .05) by the Coopersmith Measure. While the hypothesis was not supported by the Piers-Harris Instrument, mean changes in the predicted direction were observed on that scale. One explanation for lack of statistical significance may be due to different methods of

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operationalizing self-esteem in the two testing instruments (SEI, CSCS). The CSCS measures self-concept; the SEI measure self-esteem. Self-esteem is the evaluative dimension of an individual's self-concept. There are many other dimensions of self-concept. The dimensions of self-concept, other than self-esteem, may not be affected by ENCOUNTER, thereby offering an explanation as to why the results were not statistically significant.

Achieving significance on the Coopersmith instrument provides considerable support for the Principal Hypothesis. Coopersmith has demonstrated that scores on the SEI scale are very stable over time (e.g., high test-retest reliability over several years); therefore, a manipulated change achieving significance is quite substantial. Secondly, achieving significance with the reduced power of the statistical tests (due to small sample size) further substantiates the effect of ENCOUNTER in this study.

Hypothesis 2 predicted that children would score higher on self-esteem measures after having participated in PLAYS (formal drama) than children not so exposed. While Hypothesis 2 failed to achieve significance, mean changes in the predicted direction were observed.

One possible explanation for the lack of statistical significance is the small sample size. Because the treatment groups were small, the statistics used required relatively large differences to obtain significance. A second explanation for failure to support Hypothesis 2 may be due to the "multidimentional" character of the CSCS in measuring more than the evaluative dimension of the individual's self-concept.

Hypothesis 3 predicted that children would score higher on self-esteem measures after having participated in ENCOUNTER (informal drama) than children participating in PLAYS (formal drama). Hypothesis 3 failed to achieve statistical significance on either the SEI or CSCS measure. However, on both instruments ENCOUNTER produced higher mean change scores than PLAYS. Possible factors which may explain why this difference did not manifest itself follow.

1. Sample Size. Because of the small sample size, the statistics used required relatively large differences to obtain significance. With a small sample, the random error due to individual differences is larger, making it more difficult for changes due to the Drama Treatment groups to show up as significant.

2. Absences. Absenteeism was a problem because students who misssed the most sessions had lower change scores. With such a small sample, two or three scores can affect statistical significance.

3. Extraneous Variables. There is the possibility that extraneous variables due to the subject matter or teacher may have helped to produce the change in self-esteem along with the Drama groups. If an extraneous variable was operating, showing a statistically significant difference between the two Drama Treatments would have been difficult.

## Discussion

Heathcote's philosophy of informal drama, as exemplified in ENCOUNTER, is a change from "structured," "teacher-centered" approaches to drama. Heathcote's informal drama is loosely structered (e.g., held together by thematic material) and employs improvisational role playing in a person-centered environment. The teacher is a participant rather than "all-knowing." Heathcote begins with what the group is interested in rather than the interests of the teacher. Interaction in the classroom evolves not from knowledge, but from experience. That is, the participants express feelings and emotions and not only factual knowledge. Informal drama taps the resources of the participant and probes his/her knowledge of people (e.g., through drama one takes the role of a father trying to solve a problem with his son) rather than knowledge of things and skills (e.g., putting a puzzle together). In classes that are loosely structured and allow for freedom of expression and ideas, both students and teacher bring "life experiences" (actual experiences in the students' lives) to the roles they play and explore.

From a wider theoretical viewpoint, Heathcote's philosophy is related to a child-centered philosophy of education. Showing changes in self-esteem through the ENCOUNTER program provides support not only for the effect of informal drama, but also substantiates the philosophical and theoretical framework upon which informal drama is based.

Future research should explore the influence of Heathcote's informal drama in altering self-esteem in groups of various ages (e.g., younger children, teenagers, adults). Investigation into the influence of subject matter in altering self-esteem should also be conducted.

The present study has dealt with one dimension of the mind: self-esteem. Coopersmith demonstrated that self-esteem was vital to the effective physical, social, and spiritual functioning of the individual. This study has shown the influence of Heathcote's informal drama in altering self-esteem. It is hoped that future researchers will continue to investigate ways to alter self-esteem in order that the human beings might become the most capable, productive, and talented self that each has the potential to become.

## AUTHOR

Pam Woody Barragar is an Associate Professor in the Department of Theatre Arts, California State University, Los Angeles. This study is based upon Barragar's dissertation, completed at Florida State University, Tallahassee, Florida, in 1974.

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A PROGRAMMED APPROACH TO DIALECT TRAINING FOR THE ACTOR

Gordon A. Jacoby


In realistic drama, dialect--the manner of speech
characteristic of people indigenous to a particular region or culture--
is often an integral part of character. In plays such as Synge's Riders
To The Sea and The Playboy of The Western World, or O'Casey's Juno And
The Paycock, it is central to the overall effect of the play. In many
other plays, the setting and characters suggest the use of dialect to
achieve approximate fidelity to the playwright's intentions. Because
many actors, particularly in educational and community theatre, cannot
reproduce dialects, directing a dialect play often means hours of indi-
vidual and/or group work teaching the dialect.

This study is an attempt to develop and test a new method of
teaching dialects to actors. The primary objective is to construct and
test a self-instructional, audiolingual program similar to those used to
teach foreign languages. To test the program, the results from its use
are compared to those from use of a traditional method of learning a
stage dialect—that is, textbooks and recordings. Also necessary to the
study is the identification and analysis of dialect variables such as
intelligibility and credibility, as well as judgments of the meaningful-
ness of these variables.

To limit the scope of the study to manageable proportions,
only one dialect was taught: Irish-English. The experiment was carried
out by 36 volunteer undergraduate Speech-Theatre majors who had no
familiarity with dialects. They were randomized into experimental and
control groups of 18 each.

Seven units of programming were written and taped verbatim for
use by the experimental group. The principles on which the program were
based included student-controlled progress, short step-by-step units,
frequent reinforcement, and concentration on spoken speech patterns as
demonstrated by an experienced dialectician as the program proceeds from
phonology through intonation. In the program, the student-actor heard
the sound being demonstrated in the context of a work, repeated it
(recording his version on the lower track of the tape), repeated the
sound once more, and finally put it into a sentence to stress the one
sound, but allowing for natural intonation and including sounds already
covered. This process was repeated for all the key sound changes and
intonation. The student-actor was allowed to stop at any time to repeat
difficult passages as he compared his pronunciations with the model's.

Control group materials consisted of copies of chapters on
the Irish-English dialect in Marguerite and Lewis Herman's Manual of
Foreign Dialects For Stage, Screen and Radio and C. M. Wise's Applied
Phonetics, taped recordings of Susan O'Casey reading from Juno And The
Paycock, and the British Drama League's Irish-English speakers reading
poetry and prose. In addition, a blank tape was provided for practice
recordings.

Both groups received a final test passage consisting of a
two-minute dialogue from Juno And The Paycock edited to provide each
character with the same number of words while containing all key sounds
found in the program.

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Training was administered in a language laboratory setting. It required the subjects in the experimental group to devote thirty minutes to the program itself and ten minutes practice time applying the material they had learned to the test passage. Each day a new programmed unit was presented. The control group, on the other hand, received the same materials each day. They were to spend thirty minutes on the texts and sample recordings and ten minutes on the test passage. They were given no guidance as to which materials to stress or how to proceed. In all, the subjects attended eight week-day sessions. The duration of the entire experiment, including testing and learning sessions, was fifteen days.

In keeping with the pre-test, post-test, control group design of the experiment, half of the subjects from each group were pre-tested and post-tested, and half post-tested only. The same two-minute passage was used in all testing. Both in the pre-test and post-test, thirty judges, half of whom were active theatre personnel, rated each subject using a one-to-nine scale of his/her reading of the test passage, covering the dimensions of intelligibility, credibility, consistency, intonation, and characterization. Statistical tests (.05 level) between pre- and post-test scores in the dimensions of intelligibility, credibility, and intonation for the experimental group only.

The major conclusion of the study is that the experimental group learned significantly more from the programmed training than did the control group from the "trial and error" method. From this conclusion, it can be inferred that the method or manner of training effects the actor's general competence, no matter what the task or final objective.

Although the results of the study confirmed the hypothesis that the experimental group would learn more, the statistical tests made it clear that theatre terms and concepts need evaluation if complex empirical research is to be reliable. Variables and concepts of acting, discrete when taught, lose this appearance when rated by an audience.

Moreover, it is one thing to prove a system statistically reliable within the experimental framework and another to determine its practical application. The subjects bridged this gap to some extent when they responded to a questionnaire designed to provide criticism of the methods tested. Commenting on the programmed method, the experimental group found its structure, order, and fidelity to the real theatre through the use of dramatic literature particularly advantageous. Conversely, the control group cited confusion in attempting to decide which material was relevant.

A programmed approach does appear to provide a suitable method for the beginning actor. The program, which has been shown to work under experimental conditions, can teach a functioning dialect for performance in a relatively short period of time.

More broadly, the present study indicates that empirical studies in theatre can be valuable by demonstrating the potential of non-traditional modes of learning. In particular, measurement of

theatrical terms and concepts is needed to bring about agreement on
meaning.  Results should include the expansion of theoretical understand-
ing of theatre, better communication between actor and director, and
finally, more meaningful performance.

AUTHOR

        This report is based on Jacoby's dissertation, completed
at Ohio State University.

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## The Speech Communication Association

APPENDIX TWO

BEHAVIORAL RESEARCH IN THEATRE

An Annotated Bibliography

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This collection of references is intended to be an introduction for the
interested student of theatre with or without a background in scientific
research. Accordingly, empirical research materials are included which
(a) focus on theatre generally; (b) touch on major research developments
in the area (and permit, through individual article bibliographies, ac-
quaintance with antecedent research); and (c) are relatively easy to read.
The selections include quantitative studies and essays which attempt to
bring an empirical or behavioral research perspective to traditional
theoretical problems in theatre.

Overviews

Addington, David. "Art and Science in the Theatre." Indiana Speech
    Journal, 10 (1976), 1-7.

    By showing in detail how one particular empirical research
    study evolved, the humanity and naturalness of science in
    understanding theatre is sensitively demonstrated.

Clevenger, Theodore. "Behavioral Research in Theatre." Educational
    Theatre Journal, 17 (1965), 110-121.

    A brief but stimulating introduction that sets forth three
    approaches to research for the "behaviorist in theatre."

Gunkle, George. "New Directions in Theatre Research." The Cue, 42
    (1967), 5-8.

    Introduces an empirical research way of thinking about selected
    theatre problems.

Acting

Blum, Richard A. "A Psychoanalytic Profile of the Actor: Perspectives
    on Career Developments." Western Speech Communication, 40 (1976),
    196-206.

An excellent survey of ideas, many of them psychoanalytic,
about why actors act and what makes them choose such a risky
occupation.

Gunkle, George. "A Way of Talking About Acting." The Speech Teacher,
15 (1966), 305-311.

An essay that suggests a continuum between acting and communication
activity in everyday life. Using some concepts in psychology
and communication, an attempt is made to understand the "behavioral
art" of acting in the more public language of the behavioral
sciences.

Hite, Roger W., Jackie Czerepinski, and Dean Anderson. "Transactional
Analysis: A New Perspective for the Theatre." Empirical
Research in Theatre, 3 (1973), 1-17. (73p.) (ED 122 328)

A brief introduction to some basic concepts in transactional
analysis, with indications of how the theatre critic and the
director may put them to use.

Hobbs, Gary. "The Influence of Counterattitudinal Acting on the Attitudes
of Actors." The Speech Teacher, 24 (1975), 328-334. (EJ 127 594)

Studies actors who play characters with attitudes that run
counter to the actors'. Supports attitudinal changes by the
actors, but fails to find influences by other variables.

Natadze, R. "On the Psychological Nature of Stage Impersonation."
British Journal of Psychology, 53 (1962), 421-429.

Though the translation poses difficulties, this rare study will
repay the reader's effort by presenting unique methods of testing
the imagination of professional actors of varying experience.

Richardson, D. R.  and C. R. Waal. "Increasing the Reliability of
Judgments of Acting Performances." Quarterly Journal of Speech.
52 (1966), 378-382,

A measurement study that provides useful information for those
who must rank or rate acting performances.

Smith, R. Wayne. "Actor-Character Personality Identification in a
Theatre Production." Empirical Research in Theatre, 1 (1971),
29-37. (63p.) (ED 122 326)

Measures the extent to which actors "identified" with their
characters during a typical rehearsal and performance period.

Stern, Robert M. and Nancy L. Lewis. "Ability of Actors to Control
Their GSRs and Express Emotions." Psychophysiology, 4 (1968),
294-299.

A unique investigation that supports the belief that "method"

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actors can raise or lower their emotional intensity with greater
facility than "non-method" actors.  This ability seems to be re-
lated to amounts of previous practice but not to judged success
on the stage.

Sutton-Smith, Brian and Gil Lazier.  "Psychology and Drama."  Empirical
Research in Theatre, 1 (1971), 38-46.  (63p.) (ED 122 326)

Presents a unique scale for judging the extent to which an
actor is "in character," "dramatically involved," while
performing.

Taft, Ronald.  "A Psychological Assessment of Professional Actors and
Related Professions."  Genetic Psychology Monographs, 44 (1961),
309-383.

Though confined to one traveling company of actors, this study
is a model of applying sociological techniques to acquire
extensive information about actors in a typical social system.

Wuertz, Richard.  "When Actors Memorize Lines:  An Examination of
Three Models."  Empirical Research in Theatre, 1 (1971), 15-21.
(63p.) (ED 122 326)

A training study that suggests a "best method" of learning
lines may be related to the type of language in a play, the
kind of memorized result desired, and the predilections of
individual actors.

### Directing

Greenberg, Bradley S.  "The Dimensions of Casting a Play."  The Cue,
42 (1967), 9-12.

A factor analysis study that found two underlying dimensions
in casting judgments:  "ability" and "suitability."  In addition,
a small number of casting criteria were found to predict "with
some sensitivity" who got cast in the available roles.

Kepke, Allen, John Stockwell, and Robert Zyromski.  "Reliability of
Judgments of Directing Techniques."  Empirical Research in
Theatre, 1 (1971), 22-28.  (63p.) (ED 122 326)

Tested three hypotheses about judging directing from observations
of performed scenes.  Results pertain to problems of specifying
criteria, ranking vs. rating, and the stability from night to
night of intuitive standards of judges.

Miller, Keith A. and Clarence W. Bahs.  "Director Expectancy and Actor
Effectiveness."  Empirical Research in Theatre, 4 (1974), 60-74.
(76p.) (ED 122 329)

A quantitative study supporting the idea that actors who are ex-
pected by their directors to turn in the better performances are
perceived as better by the audience.

Porter, Robert E.  "Analyzing Rehearsal Interaction."  Empirical Research
     in Theatre, 5 (1975), 1-31.  (62p.) (ED 122 330)

     Presents a simple quantitative technique for describing some
     important features of communication among actors and their
     director in rehearsals.

Tannenbaum, Percy, Bradley S. Greenberg, and Margaret Leitner.  "Changes
     in Semantic Compatibility During the Production of a Play."
     Speech Monographs, 30 (1963), 340-344.

     Studies the extent to which actors and their director hold similar
     perceptions of the characters and the play at different times
     during the rehearsal and performance periods of two theatre pro-
     ductions.  A pattern of generally increasing "compatibility"
     is revealed for both productions.

Vohs, John L. and Ronald A. Willis.  "A Social Influence Approach to the
     Director-Actor Relationship."  The Speech Teacher, 16 (1967),
     143-149.

     An essay that applies Kelman's processes of social influence to
     the director-actor relationship in rehearsal.  Pros and cons
     are discussed.

### The Theatre Audience

Addington, David.  "Varieties of Audience Research:  Some Prospects for
     the Future."  Educational Theatre Journal, 26 (1974), 482-487.
     (EJ 110 727)

     A thorough survey of techniques for investigating audience
     responses to a theatre production.

Cronkhite, Gary, Diane Mishler, and John Kirk.  "The Dimensions of
     Perception of a Dramatic Production."  Speech Monographs, 38
     (1971), 132-141.

     Attempts to unearth the bases by which an audience judges a
     performed play.  Preference emerges for Likert-type belief
     statements rather than semantic differential techniques as a
     tool for this type of study.

Gourd, William.  "Cognitive Complexity and Theatrical Information
     Processing:  Audience Responses to Plays and Characters."
     Communication Monographs, 44 (1977), 136-151.  (EJ 167 542)*

     Explores through measurement the differences in response to
     dramatic dialogues by "cognitively complex" and "cognitively
     simple" persons.

Kadushin, Charles. "Shakespeare and Sociology." Columbia University Forum, 10 (1966), 25-31.

An excellent example of using sociological methods, including the in-depth interview, to better understand the nature of a theatre audience.

Klinzing, Dennis R. and Lawrence J. Wilker. "Implementing Audience Analysis Findings." Empirical Research in Theatre, 4 (1974), 53-59. (76p.) (ED 122 329)

Presents a method for gathering demographic information from a theatre audience and shows how a University Theatre put this information to work.

### Creative Drama and Theatre for Children

Davis, Jed H. "Prospectus for Research in Children's Theatre." Educational Theatre Journal, 13 (1961), 274-277.

A long series of stimulating questions, susceptible to empirical research, that reveals the complexity of theatre for children. Most of these questions have not yet been pursued through behavioral research.

Kase, Judith B., Sue M. Sikes, and Charles D. Spielberger. "Emotional Reactions to Frightening and Neutral Scenes in Story Theatre." Communication Monographs, 45 (1978), 181-186. (EJ 190 214)*

Supports the notion that frightening scenes can create high levels of "state anxiety" in children, and presents other findings by gender and by proneness to anxiety.

Lazier, Gil, Douglas Zahn, and E. Joseph Karioth. "Dramatic Behavior Norms of Florida Children." Empirical Research in Theatre, 3 (1973), 41-70. (73p.) (ED 122 328)

A study of children engaged in improvisational dramatic activities. The findings show differences by age group, gender, and section of the country, and support a relationship between "dramatic" behavior and "creative" behavior.

Schmidt, Toni, Elissa Goforth, and Kathy Drew. "Creative Dramatics and Creativity: An Experimental Study." Educational Theatre Journal, 27 (1975), 111-114p.

A field study which provides quantitative support for the con- .ion that exposure to creative drama increases the creativity children.

Shaw, Ann.  "A Taxonomical Study of the Nature and Behavioral Objectives
    of Creative Dramatics."  Educational Theatre Journal, 22 (1970),
    361-373.

    Introduces the author's "taxonomy of educational objectives in
    creative dramatics," presents an extended example, and implies
    an enriched way of understanding cognitive and affective behavior
    in creative drama activities.

                            Miscellaneou

Leitner, Margaret, S. Moss, and Percy Tannenbaum.  "Who Makes the Play
    Run?"  Journalism Quarterly, 40 (1963), 375-377.

    Reveals a relationship between the reviews of seven New York
    newspaper drama critics and the length of runs of Broadway plays
    for the 1953-1954 season.  Other specifics emerge, such as how
    well each critic "correlates" with the season's production runs
    and what combination of critics affords the best predictive power.

Rabby, L. B. and L. S. Harms.  "The Effect of Quantity of Stage Lighting
    on Audience Comprehension."  Empirical Research in Theatre, 1
    (1971), 1-14. (63p.) (ED 122 326)

    Five related experiments investigating the extent to which
    quantity of stage lighting affect audience comprehension of
    dramatic dialogue.

Thayer, David.  "Lighting and the Audience."  Southern Speech Journal,
    27 (1962), 110-118.

    A measurement study of the effects upon the audience of "con-
    ventional" and "unconventional" lighting of short dramatic
    scenes.

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