Role Playing and Personality Changes in House-Tree-Persons Drawings

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To examine needs for esteem or achievement versus safety, 50 psychology students were asked to assume an active (intrusive) and a quiet (incorporative) role for House-Tree-Person drawings. Each subject made all three drawings in both roles. To find whether role behavior showed merely cognitive appraisal of appropriate responses, i.e., simulation, or showed a mood shift as if subjects were "living their roles," an unobtrusive measure was used. Subjects were told to write their names on the back of each drawing, ostensibly for identification. For 45 subjects not aware that their 6 signatures might be a response measure, signatures were significantly larger in the active than the quiet role. This indicates that they had an authentic mood change with the changed role enactment. Tree drawings were a second unobtrusive measure. As hypothesized, they shifted significantly between open, erect trees in the active role and closed or drooping trees in the quiet role. This suggests that role playing can usefully supplement single personality tests to indicate the range of an individual's reaction in different situations, and thus measure his or her flexibility.

Personality scores, especially those from projective tests, have often been criticized because of their low reliability. Test-retest correlations seldom account for more than 50% of the variance—often accounting for as low as 10% of the variance. Critics argue that the test score does not properly locate a subject on a personality scale and that scores are too unreliable to be useful.

Others (e.g., Atkinson, 1981) argue that validity can be high even when test-retest reliability is low. Individuals are flexible. Behavior is influenced by many variables which differ from one situation to the next, and thus it is appropriate that test behavior should be similarly influenced. Therefore, just as the desirable correlation between intelligence test scores and school grades is a moderate rather than an extremely high one, so moderate rather than extremely high reliability scores are to be expected from a valid personality test.

Epstein (1980) recommends repeated administration of equivalent forms of a personality test at widely separated intervals in order to appraise an individual. Although this time consuming procedure is impractical for some purposes, the advice is theoretically sound. Not only

would such repeated administrations show the person's typical response, they would also show individual differences in variability and thus indicate each person's flexibility and probable range of responses.

A faster method of testing which can also indicate both central tendency and flexibility is role playing. Here a person responds to a test as if adopting some specified point of view or type of behavior, and then responds as if adopting a different one. But with this method a new issue must be raised. Do responses during role playing reflect an authentic change in personality state and therefore a change in potential behavior? Or do they merely show a superficial, cognitive appraisal of the social stereotype that best fits the role? To put the same issue differently, while playing two different roles does a subject feel, respond and think in two different ways? Or is the subject only simulating?

The technique for resolving this issue is to use an unobtrusive or covert measure in conjunction with an overt one. Holmes and Bennett (1974), however, report that a covert physiological measure failed to correlate with subject's behavior when subjects were asked to play an unfamiliar role — that of a subject in an electric shock experiment. In this situation, therefore, role playing was not a viable substitute for deception. Conversely, where covert measures show appropriate change, role playing may be considered a method of obtaining valid responses.

In the present experiment, signature size was utilized as the primary unobtrusive measure. Zweigenhaft and Marlowe (1973), for example, reported that signature size was larger after false feedback of success than after false feedback of failure. Signatures were also larger for tenured than for untenured faculty, for males than for females, and when playing the role of the President of the United States than for playing the role of a file clerk. This suggests that larger signature size is associated with increase in self-esteem, with the satisfaction of acheivement needs, and perhaps with the ability to move with confidence in one's personal space. It therefore seemed an excellent indicator of the difference between the two roles to be enacted in the present paper.

The roles selected were suggested by an experiment using the House-Tree-Person (H-T-P) test of personality. Aronoff (1972) reported that subjects oriented toward high esteem and acheivement tended to draw open-topped trees, while subjects oriented toward safety tended to draw closed-topped trees. This observation is interesting because it suggests a simple technique for measuring an important personality tendency. But since projective tests rarely permit interpretation of a single personality trait in isolation, a replication seems desirable.

Esteem versus safety needs, as Aronoff defined them, were close to Erikson's intrusive versus incorporative modes (1950). Thus a possible indirect replication of Aronoff's work might be obtained by asking sub-

jects to make H-T-P drawings while assuming intrusive and incorporative roles. A change between open-topped trees in the active, intrusive role and closed-topped trees in the quiet, incorporative role would support Aronoff's conclusion. Instructions for role playing were adapted from Erikson's description of the two roles.

In a preliminary study ($N = 37$) several subjects in the quiet or incorporative role drew trees with drooping branches, such as weeping willows. Because this usuage of space seemed to carry the same symbolic meaning as the closed top tree, our final hypothesis was that subjects' drawings would alternate so as to show more open-topped, erect trees in the active or intrusive role and more closed top or drooping trees in the quiet or incorporative role.

Further preliminary studies ($N = 63$) significantly supported this hypothesis ($\chi^2 = 10.96$; $p < .001$) and also showed the expected increase in signature size for names written during the intrusive role ($t[60] = 3.89$; $p < .001$). Results also indicated that the order of presenting the roles had no appreciable effect upon the responses. In these initial studies, however, only informal questioning tapped whether subjects were aware that their signature size was relevant to the project. In the present experiment an identical method was followed with the addition of two questions which probed for awareness of whether signatures were relevant to role-playing.

Method

Subjects

Fifty students at the City College of the City University of New York acted as subjects during class periods in experimental psychology. There were 22 males and 28 females. Each subject played both roles.

Procedure

Subjects took six sheets of standard size unlined paper. They were told that this was to be a role-playing experiment. Everyone would play two roles and would make drawings in each role. They were reassured that drawing skill was irrelevant. Instructions for the active role were administered first to 21 subjects and were administered second to 29 subjects. The instructions avoided mention of sex and of the technical terms for the variables reported in prior research.

Initial instructions for the quiet role were as follows:

The kind of person I'll ask you to be now is quiet and receptive. This means that

socially (while you're playing this role) you'd rather attract another person to you than be the one who makes the advances. Intellectually, you'd rather assimilate what you hear than assert your own ideas. If someone you care for is attacked, your natural response would be to shelter and protect them from injury; you wouldn't react by attacking the aggressor. You'd rather stay in one place than go adventuring into new territory. Can you imagine being that kind of receptive, warm, embracing person? Then, while you're feeling that you're this person, write your name and the number 1 on the first page, turn it over and make a picture of a house — the best picture you can.

Initial instructions for the active role were as follows:

The kind of person I'll ask you to be now is active and aggressive. This means that socially (while you're playing this role) if you like someone you'll go and try to make friends. *You'll* make the first advances. Intellectually, if there's a discussion that interests you, you'll put in your own ideas — and you'll say them loud and clear so that everyone gets the point. If someone you care for is attacked, you'll come out fighting and attack the aggressor. You're a pioneering type, opening up frontiers, curious and lively. Think you can make yourself be that kind and vigorous, competitive, aggressive person? Do! Then, while you are, put your name and the number 1 on the first page, turn it over and make a picture of a house — the best picture you can.

The instructions to write name and number were given quickly and in a perfunctory tone of voice, to imply that the purpose of writing them was only routine identification: the instruction to make a drawing and to make it the best drawing subjects could was given slowly and with emphasis.

Four minutes after the instructions to draw, the class was told they had one minute to complete the drawing. After another minute they were told to stop and to put that page at the bottom of their pile of papers. When all had done so, a shortened summary of role instructions was repeated, terminating with the instruction that after they had felt themselves into the role they should write their name and the number 2 on the page, turn it over and make a drawing of a tree, the best drawing they could. The procedure was repeated for the drawing of a person. Subjects were asked to rate themselves on a 1-5 scale for how effectively they had entered into the role while making each drawing. The next set of role instructions was then read and the procedure repeated.

Two questions followed. Subjects were asked to write what they thought the experiment was studying, and then to state what responses they thought would be measured.

Scoring

All scoring was blind. The two sets of drawings for each subject were sorted into those that seemed more active or intrusive and those that seemed more quiet or incorporative. Trees were categorized as open-topped, closed-topped, or drooping.

Signature size was measured as in Zweigenhaft and Marlowe's research. Distance in mm. from the highest to the lowest point on the signature was multiplied by distance in mm. from the extreme right to the extreme left. This gives the area of the rectangle which bounds the signature. For each subject, the sum of the three areas with quiet instructions was subtracted from the sum of the three areas with active instructions. Because preliminary studies had shown that scores were markedly skewed, a square root transformation was performed on these differences.

Results

Questionaire responses showed that subjects expected their two sets of H-P-T drawings to be compared: their hypothesis was that the drawings would differ in the two roles. However, no subject was aware that open-topped trees would be taken as indicators of the active role while closed-top or drooping trees would indicate the quiet role. Thus, the over-all difference between sets of drawings was an overt measure of role performance, but tree shape was an unobtrusive measure. Further, only three subjects reported being aware of the possibility that their signatures might be taken as a response measure. Thus for 47 subjects, signature size was most likely an unobtrusive measure.

When blind judges tried to sort the sets of drawings into those made in the quiet role versus those made in the active role, 46 of their 50 judgments were correct. This implies that most subjects were flexible (and cooperative) enough to express themselves differently and appropriately in accordance with the role demands.

Tree drawings showed a significant difference between the two roles, in the predicted direction. Blind judgments scored 17 subjects as drawing open-topped, erect trees in the active role but closed-top or drooping trees in the quiet role; seven subjects drew patterns opposite from those predicted. (Nine subjects drew open-topped trees in both roles — 17 drew closed-top or drooping trees in both roles.) When these data are evaluated by McNemar's Change Score, they yield $\chi^2 = 4.17$; $p < .05$. It should be noted that if drooping trees had been classed as open-topped, the difference would have fallen below the level of significance ($\chi^2 = 3.52$).

To evaluate signature size as an unobtrusive measure, it was necessary to discard the three subjects who suspected that signatures might be scored, and also to discard two other subjects who neglected to sign their drawings. Data from the remaining 45 subjects are summarized in Table 1. As predicted, their signatures were significantly larger in the active

Table 1

Mean Signature Size (sq. mm.)

Subjects	N	Quiet Role	Active Role
Male	18	850.5	1035.5
Female	27	765.6	1115.5
Total	45	799.6	1083.5

role ($t[44] = 3.41$; $p < .01$). This shows that responses conformed to an obviously simulated role without conscious, deliberate effort for such conformity.

Discussion

The major issue which this experiment addressed was whether role playing can provide important information about someone's personality. To answer it, we must ask a critical question: does an individual's response during role playing represent a superficial, conscious attempt to express social stereotypes, or an authentic mood and attitude change not consciously dictated? Only unobtrusive measures can make this distinction—both of which showed significant differences in the predicted direction between the subjects' intrusive (active) and incorporative (quiet) roles.

Obviously, a substantial number of the 50 subjects were so flexible that they behaved differently in unconcious *as well as* conscious ways when they were in different roles. Some subjects, however, did not show this flexibility. One implication here is that role playing can give information about flexibility—and flexibility is an important aspect of personality.

When will role playing be useful? Hints from the subjects' comments and from prior research indicate three necessary conditions. One, obviously, is that subjects not be hostile or negativistic, since, at best, such subjects will give only surface compliance to any instructions. A second is that the role be familiar enough that subjects can readily remember (and thus readily imagine) acting it out. A third is that the role be presented in such a way that it can be considered consistent with the subject's self image; in other words, a subject should be made to feel comfortable in the role.

Possible ways of making a subject feel comfortable about role enact-

ment are to suggest that each role is natural for everyone under certain conditions (e.g., feeling vigorous or feeling tired) or suggesting that each role is desirable under appropriate conditions (e.g., feeling indignant because of outragous demands or feeling cooperative because of reasonable ones). It probably is also helpful to tell subjects at the outset of the experiment that they will be asked to play two *opposite* roles. This can prevent their rejecting the first role as uncharacteristic of themselves (e.g., not the way they *really* are, a falsification of themselves), since they know they will soon have an opportunity to show what they think are their true selves via the opposite portrayal.

It would be desirable to have additional measures of how comfortable a person feels in each role, and how thoroughly he or she was immersed in it. The direct self-scaling which subjects gave in the present study did not seem to yield this information—indirect questioning is no doubt a better method.

A second question which the research addressed was whether, as Aronoff had suggested, the shape of the tree in H-T-P drawings related to Erikson's intrusive and incorporative modes. After a minor modification had been made in Aronoff's scoring, this relationship was found. When an individual simulated an active, outgoing person, tree drawings were more likely to be open-topped and erect; when an individual simulated a quiet and withdrawn role, drawings were more likely to be closed-top or drooping.

One implication of these findings for personality testing is that, as Epstein argued, a single administration of a personality test does not show the whole range of personality since an individual is quite capable of alternating opposing moods at will. A person has such a large repertoire of feelings and behaviors that no single score can adequately represent it. How can the range best be examined? One possibility is to give repeated administrations of a test, separated by fairly long intervals, in the hope that this will tap different moods. Another possibility is to use role playing, which *deliberately* explores varying moods. Responses given in opposite roles could also provide an indication of rigidity and/or flexibility. Role playing thus seems a useful adjunct to the usual single test administration.

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