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Toward a task analysis of assertive behavior. — Source link

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fect as shown in McFall and Twentyman, 1973) that some insight is gained about what the deficit is not. However, in the negative case, the information gained is provocative at best. For example, why does modeling fail to enhance the treatment program? Is it because nonassertive subjects have seen many models of assertive behavior in their day-to-day experience and that the information provided by the models is redundant? How does the information conveyed by models differ from that provided by coaching? Is it more inductive than deductive? Is it more sketchy? Or is the modeling component poorly designed? What specifically is the response deficit that would make modeling ineffective and coaching effective? Therefore, even in the negative case, a component analysis does not specify the response deficit with precision.

An alternative strategy for specifying the response deficits in nonassertive subjects is suggested by the research of Gagné (1969) in the design of a remedial mathematics program. Suppose that some fourth-grade children in a city were incompetent in long division. Tests of addition, subtraction, multiplication, and the knowledge of remainders colud be given to both children who could and could not do long-division problems. The intervention program would depend on the specific performance discrepancy obtained from this "task analysis" study. Such a study begins by specifying the likely components of a competent response and then testing the extent to which performance on the components discriminates between competent and incompetent populations.

The purpose of the present investigation was to determine what components are necessary in order to perform a competent assertive response. The assertive response was defined to include measurable responses from the cognitive, physiological, and overt response classes. Low-assertive, moderate-assertive, and high-assertive subjects were compared to determine which components of assertive behavior differentiated between groups within the three response classes mentioned above. For the purpose of this study, the definition of assertive behavior has been limited to refusal behavior, that is, refusing an unreasonable request.[1]

The components assessed within the cognitive system included positive and negative self-statements, that is, innerstatements or thoughts that would make it easier or harder to deliver a convincing refusal. When confronted with unreasonable requests, it is possible that assertive people make self-statements that are adaptive in terms of their ability to refuse. The unreasonable request may also elicit self-statements in nonassertive subjects that focus on the fear of being disliked or on having a moral responsibility to help everyone regardless of the situation. Meichenbaum found that test-anxious clients (Meichenbaum, 1972), speech-anxious clients (Meichenbaum, 1971), and phobic clients (Meichenbaum, 1971) produce negative self-statements that are maladaptive in terms of the desired performance. In the present study, the cognitive self-statements as they relate to the assertion situations were assessed by the Assertiveness Self-Statement Test (ASST) devised for this study.

Within the physiological system, the component measured by the present investigation was heart rate. In treating nonassertive subjects, McFall and Marston (1970) found that behavior rehearsal resulted in a reduction in heart rate measured after McFall's Behavior Rehearsal Assertion Test (BRAT); control groups demonstrated an increase in heart rate. Since a reduction in heart rate appears to be an outcome of McFall's treatment program, it has been used as the physiological measure in the present study. In addition, subjects were asked to rate their self-perception of tension on a 7-point scale after performing assertive responses.

To separate knowledge of the content of a competent response from its delivery, three sets of problematic situations that require an assertive response were administered to the

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[1] In a pilot study with 60 undergraduates, a general assertion scale (Galassi, DeLo, Galassi, & Bastein, 1974) was administered with McFall and Lillesand's (1971) CRI. The correlation between the two scales was .72, so it is likely that the inability to refuse an unreasonable request is strongly related to general assertion problems.

RBRAT representing the terminal behavioral objective (see Figure 1). The skills measured by tasks assessing knowledge of the content of a good assertive response are prerequisite to performance on the RBRAT. But before the terminal behavior can be performed, the heart rate responses, self-perceived tension, and cognitive self-statements may intervene to affect delivery. The form that these responses take can either be adaptive or maladaptive in terms of the terminal goal behavior. Since this study is exploratory in nature, no specific hypotheses were offered as to the nature of differences on these components of the assertive response.

METHOD

Subjects

Forty-seven male and 54 female college students participated in the experiment. They ranged from extremely nonassertive to highly assertive as measured by the Conflict Resolution Inventory (CRI) developed by McFall and Lillesand (1971). A number of subjects were recruited on the basis of their own evaluation of their degree of assertiveness through announcements in several undergraduate psychology classes. All subjects were formally tested for level of assertiveness by the CRI. Subjects were assigned to either low-, moderate-, or high-assertive groups on the basis of their CRI scores. Classification was done with a bivariate criterion using both assertion and nonassertion scores on the CRI. Low assertives had to earn an assertion score of 13 or less and a nonassertion score of 18 or more; moderate assertives had to earn an assertion score of between 10 and 20 or a nonassertion score of between 11 and 17; and high assertives had to earn an assertion score of 21 or more and a nonassertion score of 10 or less. There were 32 low assertives, 41 moderate assertives, and 28 high assertives, with approximately equal numbers of males and females in each group.

Procedure

Subjects were introduced to the experiment and told that the purpose was to find out more about how people react in situations requiring assertive behavior in order to develop a training program to help people who have a problem in this area.

While subjects filled out the CRI, their heart rate was recorded to obtain a base rate for later comparisons. They also indicated their level of tension on a 7-point scale to provide a base rate of self-perceived tension. After subjects were administered the CRI and randomly assigned to a counterbalancing order, they were presented with three sets of stimulus situations in which they were confronted with unreasonable requests. The three sets of situations were presented in counterbalanced order for all groups, and heart rate was again recorded before and during the first and last situations on the RBRAT. After responding to all the assertive situations, the ASST was administered to assess the positive and negative self-statements.

Dependent Measures

The subjects' written and tape-recorded responses on the AKI, HYPO, and RBRAT were rated independently by two "blind" judges using a 5-point scale from 1 (unqualified acceptance) to 5 (unqualified refusal; McFall & Twentyman, 1973). Rater intercorrelation on the AKI was .92, and a t test indicated that there was no difference between the two raters, $t(88) = .27$, $p = .79$. Rater intercorrelation on the HYPO was .56, and there was no difference between raters, $t(88) = .27$, $p = .79$. Rater intercorrelation on the RBRAT was .90, and there was no difference between the two raters $t(88) = .39$, $p = .70$. Overall reliability (as measured by interrater correlation) on the three tasks was .79.

Heart Rate

Heart rate was measured using a spatially displaced finger plethysmograph that activated a photoelectric cell. It was placed on the ring finger of the nonwriting hand. A base rate was taken while the subject was filling out the CRI. Recordings were later made before and during the first and sixth RBRAT situations.

Self-perceived Tension

Subjects were asked to rate how nervous they felt on a scale from 1 to 7 (1 = not all nervous and 7 = extremely nervous). This measure was taken during the CRI as a base rate and immediately after the first and sixth RBRAT situations.

Cognitive Self-statements

Immediately after responding to all of the 18 assertive situations, the subject was given the ASST. This is a 34-item questionnaire with 17 positive self-statements that would make it easier to refuse the request and 17 negative self-statements that would make it harder to refuse. Examples of each are as follows:

> Positive: I was thinking that it doesn't matter what the person thinks of me; I was thinking that I am perfectly free to say no; I was thinking that this request is an unreasonable one.
>
> Negative: I was worried about what the other person would think about me if I refused; I was thinking that it is better to help others than to be self-centered; I was thinking that the other person might be hurt or insulted if I refused.

Subjects were asked to indicate on a scale from 1 to 5 how frequently these self-statements characterized their thoughts during the preceding assertive situations (1 = hardly ever and 5 = very often).

The ASST was consensually validated on an independent sample of 37 college students. Only those

moderate-, and high-assertive subjects on positive self-statements, $F(2, 83) = 6.53$, $p = .003$. Even stronger differences were found on negative self-statements, $F(2, 83) = 36.25$, $p = .00001$ (see Figure 2). High-assertive subjects had more positive and fewer negative self-statements than low-assertive subjects; moderate-assertive subjects fell midway between.[2] The Tukey HSD test indicated that only the low- and high-assertive groups differed significantly on positive self-statements, HSD = 6.41, obtained difference(60) = 7.99, $p < .01$. On negative self-statements, however, all groups differed significantly as shown by the following pairwise comparisons among the groups—for low- and moderate-assertive groups, HSD = 5.63, obtained difference(60) = 8.08, $p < .01$; for moderate- and high-assertive groups, HSD = 5.63, obtained difference(60) = 7.81, $p < .01$; for low- and high-assertive groups, HSD = 5.63, obtained difference(60) = 15.89, $p < .01$.

To test for an interaction between groups and self-statements, a repeated measures analysis of variance was performed with two levels of self-statements (positive and negative). A significant interaction was obtained, $F(2, 98) = 29.82$, $p < .0001$.

To investigate differences between positive and negative self-statements within groups, a t test for matched samples was performed. The low-assertive group had more negative than positive self-statements, but this difference was not significant, $F(1, 31) = 1.77$, $p = .190$. On the other hand, the moderate group had significantly more positive than negative self-statements, $F(1, 40) = 24.65$, $p = .001$. The high-assertive group also had significantly more positive than negative self-statements, $F(1, 27) = 66.51$, $p < .0001$.

To investigate whether the assertive groups differed in the way they sequenced positive and negative self-statements, a chi-square contingency table test was performed and found to be significant, $\chi^2(6) = 16.01$, $p = .025$. A greater percentage of the high-assertive subjects checked the item characterized by "unshaken confidence" (+ +) than the low-assertive subjects, with the moderate subjects falling midway in between (see Table 1). Within the low-assertive group, there were individual differences in the sequence of positive and negative self-statements, with no preference shown for any of the sequences (excluding unshaken confidence). In fact, the alternative sequences were chosen by equal (22%) percentages of low-assertive subjects. Those in the moderate group not characterized by "unshaken confidence" did show a preference for the coping sequence (− +), with 20% choosing this sequence.

TABLE 1

Chi-Square Contingency Table Showing the Percentages of Subjects Choosing Each of the Four Self-Statement Sequences

Assertive group	Self-statement sequence Coping (− +)	Unshaken doubt (− −)	Unshaken confidence (+ +)	Giving up (+ −)
Low	22	22	34	22
Moderate	20	7	61	12
High	7	4	82	7

In addition to the assertive and nonassertive scores on the CRI, McFall and Lillesand (1971) calculated the difference between the assertive and nonassertive scores. Difference scores in the present investigation ranged from a low of −24 to a high of 34. In an attempt to gain greater descriptive and predictive precision, a polynomial regression was performed for positive and negative self-statements on assertiveness. The relationship between assertiveness and both positive and negative self-statements was best described by a linear function; for positive self-statements, $F(1, 97) = 63.1$, $p < .01$. Neither the quadratic nor the cubic terms were significant (see Figures 3 and 4).

Discussion

Items selected from the CRI to form the AKI, HYPO, and RBRAT did not differ significantly on perceived discomfort. Discomfort

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[2] The self-statements that distinguished low and high assertives the most tended to fall into the following categories: (a) concern about negative self-image and fear of being disliked and (b) other-directed versus self-directed—concern for the other person's position, feelings, and needs.

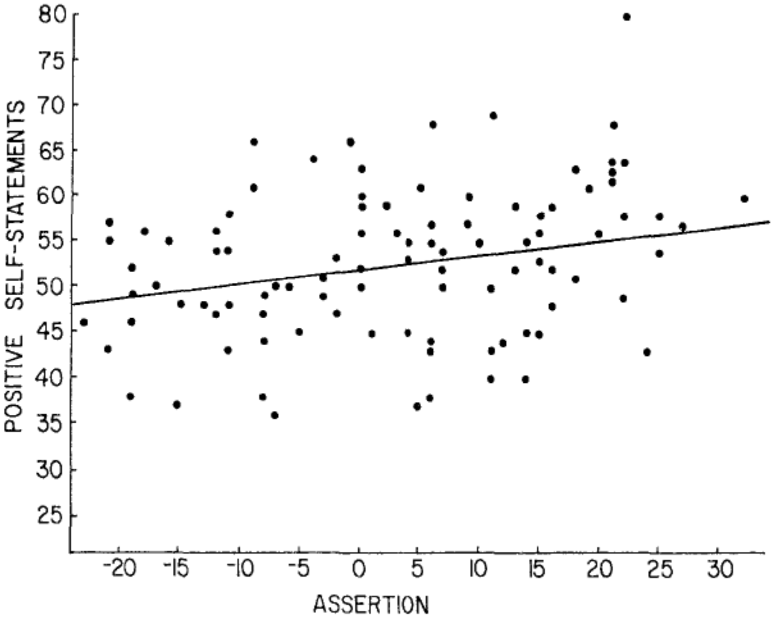

FIGURE 3. Polynomial regression of negative self-statements on CRI assertion difference score.

scores loaded highly on the CRI nonassertion factor. The three tests thus have similar psychometric properties, and the absence of between-group differences on the AKI and HYPO and their presence on the RBRAT have important implications in describing the nature of the response deficit in nonassertive subjects.

Nonassertive subjects did not differ from highly assertive subjects in their ability to

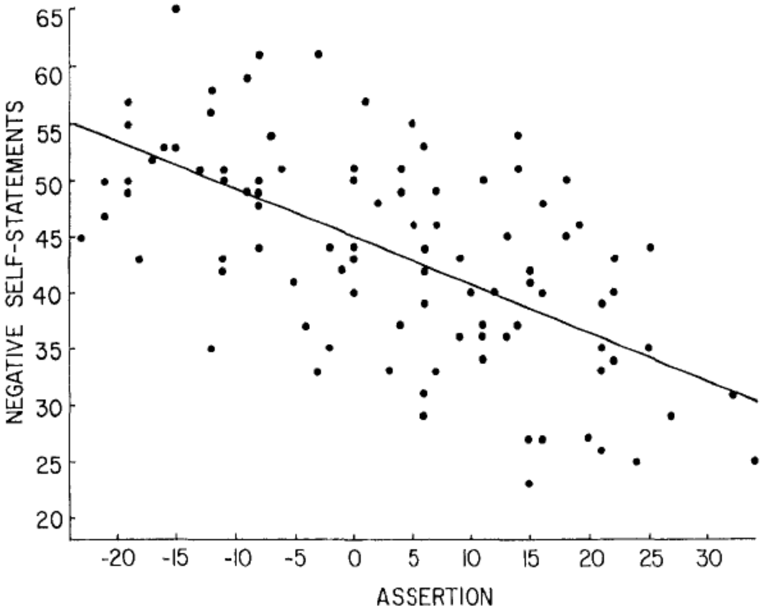

FIGURE 4. Polynomial regression of positive self-statements on CRI assertion difference score.

on's (1975) findings that a variety of patients had thought patterns characterized by negative and maladaptive self-statements. It is worth noting that not one low-assertive subject in the present investigation had cognitive self-statement scores that were similar to those of the high-assertive group. This demonstrates an extremely strong and consistent group difference that was not spuriously produced by averaging the data.

Comparing positive and negative self-statements within the groups, the moderate- and high-assertive subjects had significantly more positive than negative self-statements; the low-assertive subjects did not differ in their positive and negative self-statements. This indicates that highly competent assertive people have a greater discrepancy between their positive and negative self-statements, in favor of the positive ones. There is little doubt in their minds about the appropriateness of their action. The low-assertive subjects, on the other hand, can be characterized by an "internal dialogue of conflict" in which positive and negative self-statements compete against one another. Such a state would hardly facilitate appropriate and effective assertive behavior. These findings suggest that some type of cognitive restructuring (Ellis & Harper, 1961) or manipulation of cognitive self-statements (Meichenbaum, 1972) may be an appropriate form of treatment for nonassertiveness.

Direct intervention using cognitive self-statement modification may enhance transfer of training effects. McFall and Marston (1970) found that transfer effects occurred on one of five measures in a telephone follow-up resistance to a magazine salesman. McFall and Lillesand (1971) failed to show a significant difference between treatment and assessment-placebo control groups in their telephone follow-up. McFall and Twentyman (1973) reported the results for four studies dismantling a standardized semiautomated assertion training program. In the first study no transfer of training was demonstrated in a telephone follow-up. In the second study experimental groups again did not show transfer of training in two in vivo resistance to pressure measures, although performance was improved on behavioral and self-report measures in untrained situations of the RBRAT. The third study again found no transfer effects for a pressuring telephone call. The fourth study, however, did result in transfer of training using a modification of the all-or-none procedure for measuring transfer of training used in their third study to a more continuous procedure. Although it may be that obtaining transfer effects is a function of the assessment procedure, taken together it is clear that transfer of training is an issue in response-acquisition methodology.

Meichenbaum and his associates have been successful in obtaining transfer effects using a coping self-statement intervention with hospitalized schizophrenics (Meichenbaum & Cameron, 1973), speech-anxious subjects (Meichenbaum, Gilmore, & Fedoravicius, 1971), and test anxiety (Meichenbaum, 1972). Glass, Gottman, and Shmurak (1976) collaborated in a study of the relative effectiveness of coaching and rehearsal versus cognitive self-statement modification in a dating skills program for girl-shy college males. They found that the greatest transfer effects to untrained laboratory role-playing situations, and ratings made by females the subjects called for a date, were obtained by the cognitive self-statement intervention. These findings are consistent with the current task analysis study and suggest that transfer of training effects may be enhanced with a cognitive self-statement assertion training intervention.

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