

Attitudes, Labeling Bias, and Behavior Modification in Work Organizations

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The present study investigated a labeling bias against behavior modification in work organizations. Groups of individuals in favor or opposed to the use of behavior modification in industry were formed. The identical videotape of a performance appraisal interview was shown to these subjects after half of each group had received a humanistic, and the other half a behavior modification, description of the videotape's contents. The 2×2 (Label \times Attitude) analyses of variance revealed no evidence of a labeling bias. Although both method and leadership characteristics were rated more positively when the videotape was said to be descriptive of humanistic techniques, a significant Label \times Attitude interaction emerged. The failure to yield any labeling bias is contrasted with previous research, while the need for a more "humanistic" terminology in describing behavioral programs is emphasized.

Behavior modification has struggled to achieve popular acceptance within psychology (Lazarus, 1977). This issue is of some importance, since it may influence the extent to which professionals in different settings utilize behavior modification techniques, regardless of their empirically demonstrated efficacies. Two examples of a possible "labeling bias" against behavior modification have been demonstrated in different settings. First, Reppucci and Saunders (1974) documented an attempted implementation of a behavior modification program which was not accepted by the staff members concerned until the terminology of the program was changed, "behavior modification" becoming the less value-charged term "social learning." Second, Woolfolk, Woolfolk, and Wilson (1977) found that a humanistic description of an educational strategy was accepted more readily than a behavior modification description, although prior attitudes to behavior modification in general were not controlled.

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Recently, behavior modification has been applied within work organizations (cf. Franks & Wilson, 1977; Luthans & Kreitner, 1975; Saad & Barling, 1977). The importance of attitudes toward this implementation is acknowledged (Dubno, Hillburn, Robinson, Sandler, Trani, & Weingarten, 1978). Interestingly, both Hammer (1971) and Fry (1974) have criticized behavior modification in work organizations on the grounds that it is based largely on operant conditioning using animal studies; indeed, Hammer (1971) refers to organizational behavior modification as "applied ratamorphism." Both these authors, however, largely ignore any research concentrating on the application of operant conditioning principles to human behavior in work organizations (cf. Franks & Wilson, 1976; Schneier, 1974).

It is feasible that the term "organizational behavior modification" itself may elicit unfavorable reactions, largely on the basis of the label and terminology rather than the particular technology involved. The present study was therefore a constructive replication of the earlier study of Woolfolk et al. (1977), in that the possible influence of the label "organizational behavior modification" on subsequent attitudes was examined. It was predicted that a negative labeling bias would exist against behavior modification in the industrial and organizational milieu.

METHOD

Subjects. The present study was divided into two sections. In the first, 112 subjects completed a revised edition of Musgrove's (1974) Behavior Modification Attitude Scale. The subjects (\bar{X} age = 21.78 years, SD = 1.68) comprised third-year undergraduate students (n = 90) and first-year postgraduate students (n = 6) involved in separate year-long courses in industrial psychology and organizational behavior and final-year undergraduate students majoring in psychology (n = 16).

The second part of the study involved 32 of these subjects (\bar{X} age = 21.47 years, SD = 1.41; 25 males, 7 females; 24 third-year industrial and organizational behavior students, 5 final-year psychology undergraduates, and 3 psychology postgraduates) who had been contacted on the basis of their scores on the revised version of the Behavior Modification Attitude Scale; all had consented to participate in this section of the study. All subjects had expressed an interest in using the knowledge gained about organizational behavior modification in the above courses once assuming full-time employment.

Assessment. To assess attitudes to the use of behavior modification in work organizations, all subjects (n = 112) initially completed a revised version of Musgrove's (1974) scale; the original scale assessed overall attitudes to behavior modification in the educational setting. For the purposes of the present study, the 20 items had been reworded to reflect the industrial context. The mean score of 66.73 on this revised scale (SD = 13.96; minimum = 32, maximum = 89) was extremely similar to that of the original (\bar{X} = 64.28, SD = 13.31; minimum = 20, maximum = 96). In

its revised format, the scale had a Cronbach's α reliability coefficient of .86 and a split-half reliability of .91.

Parker's (1976) shortened form of Taylor and Bowers' (1972) Survey of Organizations was administered to assess attitudes concerning supervisory leadership. This comprised four dimensions, viz., managerial support (3 items), goal emphasis (2 items), work facilitation (3 items), and interaction facilitation (2 items), each of which was rated on a 5-point Likert-type scale. In addition, all the items comprising the organizational climate factor were administered (cf. Franklin, 1975). This consisted of four different subscales, viz., decision-making practices (4 items), human resources primacy (3 items), communication flow (3 items), and motivational conditions (3 items). The 18-item Likert-type scale and 15-item semantic differential of Woolfolk et al. (1977) were slightly reworded to reflect the work context (e.g., "teacher warmth" became "manager warmth;" "teacher was a good model for me" became "manager was a good model for me"). The eight factors generated from their study, viz., manager evaluation (6 items), method efficacy (5 items), interest in method (4 items), manager flexibility (2 items), method quality (7 items), emotionality (4 items), tedium (2 items), and idealism (1 item) were thus administered.

The 16 subscales administered characterized numerous different aspects of organizational behavior. To establish any possible commonality among these 16 different dimensions, a principal-components factor analysis with varimax rotation was performed. Three factors with an eigenvalue greater than 1 emerged, while the formula $3/\sqrt{N}$ (Mauer, Note 1) was used to define the meaning of the various factors (see Table 1). This formula allows for the relatively small sample size utilized in this part of the study. Factor 1 was labeled *method characteristics* and defined by subscales 1 through 9. Factor 2, labeled *leadership characteristics*, comprised subscales 10 through 13. Finally, Factor 3, comprising items 14 and 15, was labeled *perceived organizational climate*.¹ Only the first two factors served as dependent variables. The subscale "work facilitation" did not load significantly on any of the factors. In summing the relevant subscales to obtain separate factor indexes, work facilitation was thus excluded.

A 6-min, 38-sec videotape depicting a 3-month performance appraisal session between a manager and his line supervisor regarding the latter's performance was shown. During the interview, the manager contingently reinforced his line supervisor's self-monitored performance whenever their mutually predetermined goals had been attained. The line supervisor

¹ The possible importance of this factor is minimized for three reasons. First, only two subscales loaded significantly on this factor; it is doubtful, however, whether "doublets" are sufficiently robust to constitute a separate factor. Second, this factor only accounted for a minimal amount of variance (11.8%). Third, perceived organizational climate is somewhat unstable and difficult to define (Franks & Wilson, 1977). This factor is therefore disregarded.

TABLE 1
VARIMAX ROTATED FACTOR STRUCTURE^a

	Factors			Communality
	1	2	3	
1. Method efficacy	.97	.05	.01	.98
2. Manager evaluation	.97	.20	.11	.95
3. Method quality	.96	.18	.05	.97
4. Managerial support	.94	.09	.20	.94
5. Interest	.89	.05	.03	.90
6. Emotionality	.88	.02	.10	.87
7. Idealism	.78	.52	.02	.91
8. Communication	.75	.46	.27	.86
9. Motivation	.60	.34	.07	.59
10. Interaction facilitation	.14	.89	.07	.80
11. Goal emphasis	.13	.84	.02	.78
12. Flexibility	.43	.62	.12	.63
13. Tedium	.44	.60	.32	.79
14. Human resources primacy	.33	.12	.82	.72
15. Decision making	.33	.08	.70	.59
16. Work facilitation	.50	.33	.03	.52
Eigenvalue	7.65	3.06	1.43	
Variance	63.00	25.20	11.80	

^a Item loadings of .53 and above define the meaning of a factor.

was also required to monitor her workers to assess whether a decrease in absenteeism and the number of items rejected by the quality control inspector had been achieved. After identifying potential problem areas and setting goals for her workers for the following 3-month period, she was again socially reinforced for her performance.

Procedure. On the basis of the median score (69.44; $SD = 13.96$) on the revised version of Musgrove's (1974) scale, subjects were divided into two groups, one favorably disposed toward and the other relatively antagonistic regarding the use of behavior modification in work organizations. Thirty-two subjects whose scores placed them at the extreme of these two groups were then contacted and asked to volunteer for an experiment that would involve their viewing and rating a training videotape used extensively in a large South African organization. The two groups formed differed significantly regarding their attitudes to organizational behavior modification [\bar{X} 75.19 vs 57.95; $t(31) = 6.82, p < .001$, two tailed]. In all situations, subjects viewed the same videotape; only the description of the videotape's contents given the subjects was manipulated. Half of the subjects in each attitude group ($n = 8$) were randomly

assigned to an organizational behavior modification description, the rest receiving a humanistic description of the identical videotape.²

Two different paragraphs were used to introduce the experimental manipulations and were based on the descriptions of Woolfolk et al. (1977). The organizational behavior modification descriptions were introduced as follows:

The purpose of this videotape is to introduce to you a significant development in industrial psychology, viz., the use of "organizational behavior modification," which is sometimes called O B Mod. This technique is based largely on the work of B. F. Skinner. Following success in controlling the behavior of laboratory animals, Skinner and other behavioristic psychologists concluded that to be optimally effective, managers, trainers, foremen and the like should behave in the industrial situation in a similar fashion to that of the experimental psychologist in the laboratory. Thus, it would be the responsibility of the manager, trainer, foreman to determine the final ("target") behaviors that are required of his/her subordinates. Following this, their behavior should be systematically shaped by presenting the correct reinforcements following the appropriate behavior.

The humanistic condition was introduced as such:

The purpose of this videotape is to introduce to you a significant development in industrial psychology, viz., the use of a humanistic approach which is sometimes called Need Hierarchy Theory. This technique is based largely on the work of A. H. Maslow. Recognizing the importance of both feelings and cognitive activities in the overall pattern of the individual's personality functioning, Maslow and other humanistic psychologists concluded that to be optimally effective, managers, trainers, foremen and the like should function in the industrial situation in a fashion that enhances self-esteem and fosters self-awareness in the climate of a warm, accepting, interpersonal relationship. Thus, it would be the responsibility of the manager, trainer or foreman to attempt to develop such a growth-potentiating relationship with his/her fellow workers to foster the attainment of the objectives. Within this context, individuals would develop to the point where the worker would be able to fulfill organizational goals.

In both cases, the actual descriptions of the videotape's contents given the subjects closely followed the jargon used in the introductory paragraph. In the organizational behavior modification condition, procedures and techniques were described using "reinforcement" terminology; the humanistic condition was described in terms of "growth."

Each testing session began with the experimenter reading the appropriate description of the videotape together with groups of between 8 and 12 subjects, all having been assigned to the same description. Although the experimenter was necessarily aware of which descriptions were being administered, he was "blind" to which subjects were either in favor of or

² Transcripts of the actual videotape, copies of the different instructions given the various groups, as well as the revised version of Musgrove's (1974) questionnaire are available from the senior author upon request.

against the use of organizational behavior modification, thereby ensuring some experimental control for possible experimenter bias effects. Following this, subjects received three questionnaires in counterbalanced order. All subjects received the same instructions regarding their completions, viz., they were to respond as if they were the line supervisor in the particular organization.

The 32 subjects participating in this section of the study had all completed course work on behavior modification and humanistic approaches to organizational behavior. The videotape session was consequently administered by the second author who had not been involved in any of this teaching and therefore could not be identified with any particular approach, which may have biased the results.

RESULTS

Separate 2×2 (Label \times Attitude) analyses of variance were performed on the two dependent variables. Significant main effects were obtained for method [$F(1,28) = 6.77, p < .015$] and leadership [$F(1,28) = 6.06, p < .02$] characteristics. However, these significant attitude main effects toward organizational behavior modification are statistical artifacts of the median split and therefore will be disregarded.

A significant main effect for labels was obtained on method characteristics [$F(1,28) = 5.18, p < .03$]. Analysis of the mean scores (see Table 2) indicated that subjects receiving the humanistic description rated this factor significantly more positively. The method characteristics interaction, however, was not significant. A significant main effects for labels [$F(1,28) = 10.25, p < .003$] was also obtained on leadership characteristics. Again, leadership characteristics were rated more positively by those subjects receiving the humanistic description. A significant Label \times Attitude interaction [$F(1,28) = 4.38, p < .05$] was also obtained when rating this dependent variable.

DISCUSSION

For a labeling bias to be evident against behavior modification, significant main effects for labels should be obtained. Within the context of

TABLE 2
MEAN SCORES FOR THE FOUR GROUPS ON THE TWO DEPENDENT VARIABLES

Dependent variables	Humanistic label		Organizational behavior modification label	
	High	Low	High	Low
Method characteristics	153.37(4.80) ^a	168.12(3.02)	159.12(5.56)	137.25(10.23)
Leadership characteristics	35.62(152)	39.37(1.45)	37.12(1.98)	27.87(2.86)

^a Standard error of the mean presented in parentheses.

work organizations, labeling biases regarding either or both of the dependent variables would assume considerable import since they have been shown to affect behavior in such situations. In addition, they appear to represent separate entities as evidenced by their factorial distinctiveness. The specific characteristics of the method would probably be of major importance in deciding which particular technique would be utilized. Leadership characteristics have been shown to have some influence on a variety of behaviors in organizational settings, for example, job performance, satisfaction, and group processes (cf. McCormick & Tiffin, 1974; Steers & Porter, 1975).

Significant main effects for labels appeared on both the method and leadership characteristics. This would suggest that a labeling bias exists against organizational behavior modification since these two variables were rated more positively when described in humanistic terms. However, a significant Label \times Attitude interaction emerged for the leadership characteristics. In addition, although the more pronounced Label \times Attitude interaction occurred for method characteristics, it was not significant due to the wide dispersion and consequently the overlap of scores (see Table 2). Examination of the direction of these two interactions minimizes the importance of the labeling main effects. In both cases, the significant main effects for labels is a function of prior attitudes to organizational behavior modification. Individuals who tended to favor organizational behavior modification and subsequently received a behavior modification description rated the method and leadership characteristics more positively; those exposed to a humanistic label of the videotape rated these two variables negatively. On the other hand, both method and leadership characteristics were rated more favorably by individuals who were against the use of behavior modification techniques in work organizations and exposed to a humanistic description, but negatively if they had received a behavior modification of the videotape's contents.

The present results extend the findings of previous research. Woolfolk et al. (1977) maintain that a significant labeling bias exists against behavior modification in educational settings since the identical videotape in their study was rated more favorably when described in humanistic rather than behavior modification terminology. Yet their study could not account for the possible effects of prior attitudes toward behavior modification. Based on the results of the present study, however, it is suggested that their significant results may have been a function of prior attitudes toward behavior modification.

Despite this possible limitation in their study, the suggestion of Woolfolk et al. (1977) that the manner in which behavioral programs are described and presented is important in determining their subsequent acceptance remains salient. That the application of behavior modification techniques in work settings is still received with some suspicion (Franks & Wilson, 1977) may be a function of two factors, rather than the label per se. First, the esoteric, mechanistic jargon employed in describing such programs and, second, the tendency to equate behavior modification with

any attempt to control behavior may predispose such negative attitudes. To achieve increased acceptance, the terminology used in describing behavior modification might profitably be changed to reflect a more humanistic terminology (cf. Bandura, 1975; Reppucci & Saunders, 1974; Woolfolk et al., 1977).

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