THE IMPACT OF PARTICIPATION ON GOAL ACCEPTANCE AND PERFORMANCE: A TWO-STEP MODEL

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Past research has tested goal setting strategies and found high and invariant levels of goal acceptance. The present research consisted of two studies—one laboratory and one field experiment—hypothesizing a two-step model (participation \( \rightarrow \) acceptance \( \rightarrow \) performance) with which participation could be tested more effectively. Stepwise, hierarchical regression analyses demonstrated that the participative and representative groups outperformed the assigned groups under conditions in which individual goal acceptance varied. The findings support the two-step model and offer an explanation as to why previous research has failed to differentiate empirically between participative and assigned goal setting.

The basic assumption of a goal setting model of behavior is that goals are immediate regulators of human behavior. A goal in this context is what the individual is trying to accomplish (Locke, Shaw, Saari, & Latham, 1981). The major finding supporting this theoretical model is that specific and difficult goals lead to high levels of performance if these goals are accepted by individuals (Locke, 1968). Thus, goal setting can be an effective method of influencing performance.

However, goal acceptance cannot be taken for granted. For instance, Beer (1976) described group participation in discussion as a means of creating commitment to organizational goals under conditions of resistance. Willer and Miller (1976) found that mere information about a task and goal without participation resulted in low levels of goal acceptance and poor performance—longer patient stays in a psychiatric hospital. Successfully influencing individuals to accept organizational goals may be the essence of leadership and managerial effectiveness (Coch & French, 1948; Lewin, Lippitt, & White, 1939; Vroom & Yetton, 1973). Thus, goal acceptance is a key issue relating to whether or not goals affect performance (Locke et al., 1981).

One method employed to enhance goal acceptance is participation in decision making (PDM) (Lewin, 1951). This method has been employed in

The authors wish to express thanks to Bernie Nichols and Laura Mayer for their assistance in data collection. In addition, we wish to thank Paul Langner and his staff for their cooperation in the field study.
industry to overcome resistance to change (Coch & French, 1948) and as a managerial strategy to increase subordinates' goal acceptance (Vroom & Yetton, 1973). Although many researchers advocate its use (Argyris, 1955; Likert, 1961; Tannenbaum, Kovcic, Rosner, Vianello, & Weiser, 1974), few researchers have made clear what PDM entails (Locke & Schweiger, 1979).

Locke and Schweiger proposed that PDM influences productivity indirectly through two mechanisms: cognitive aid (e.g., providing information about the task), and motivational aid (e.g., enhancing acceptance and increasing goal difficulty, perhaps through a social comparisons process). They further specified that PDM influences acceptance, which in turn influences performance. The cognitive benefits of PDM are increased knowledge and understanding of the goal and the task (Lewin, 1951). The motivational benefits of PDM may include increased commitment to the goal (Lawler & Hackman, 1969) and the setting of higher goals (Latham & Saari, 1979; Latham & Yukl, 1975; Zander, 1979).

In a recent paper addressing the theoretical role of acceptance in goal setting, Erez and Kanfer (1983) argued that participation in goal setting may increase goal acceptance beyond externally assigned goals by increasing an individual's feelings of control over the goal setting process (Bandura, 1977; DeCharms, 1968; Kanfer, 1980). Research on assigned and participative goal setting consistently has found no differences in goal acceptance between these two strategies (Dossett, Latham, & Mitchell, 1979; Latham, Mitchell, & Dossett, 1978; Latham & Saari, 1979). An exception was Hannan (1975), who found that PDM enhanced goal acceptance. In addition, Locke et al. (1981) cited several studies that do not support a linear relation between goal acceptance and performance even though goal acceptance is presumably a required part of the goal setting model (Locke et al., 1981).

Thus far, nearly all research studying the effects of goal acceptance on performance has found goal acceptance invariant with respect to participation (Dossett et al., 1979; Latham et al., 1978; Latham & Saari, 1979).

The issue of interest in the present study was to determine whether or not the reviewed relations hold with varying levels of goal acceptance. We investigated whether participative goal setting enhances goal acceptance when individuals are faced with goals perceived as being extremely difficult. In addition, we investigated the relation of goal acceptance to performance under these conditions. The study sought to determine whether goal acceptance and performance are positively related, and whether participative goal setting is a means of enhancing goal acceptance.

We suggest that participative goal setting enhances goal acceptance more than does assigned goal setting when an individual faces a goal perceived as extremely difficult or undesirable. Support for this comes from Coch and French (1948), Hannan (1975), and Lewin (1951). Therefore,

**Hypothesis 1:** The level of goal acceptance increases as the degree of participation increases.

The relation of acceptance to performance is less clear in prior research. Researchers have failed to find a consistent relation between these two
variables despite their intuitive connection (Locke et al., 1981). The strong theoretical basis provided by Erez and Kanfer (1983), however, would suggest a positive relation. Specifically,

Hypothesis 2: Participation influences performance through its influence on acceptance.

STUDY 1

Methods

Subjects. The study used 120 male and female students recruited from introductory psychology classes at the University of Illinois. Participants received credit toward their fulfillment of a class requirement.

Design. The experimental manipulation was a $3 \times 2$ factorial design consisting of three conditions of goal setting—participative, representative, and assigned; and two conditions of personal goals—one in which the subjects were not asked to set their own personal goals (No-Set), and one in which they were asked to set their personal goals before the goal setting manipulation (Set).

The three goal setting conditions represent three different types of goal setting. In participative goal setting, subjects were allowed to jointly determine their goals. In the representative condition, a representative elected by the group negotiated with the experimenter in setting a goal. This condition was introduced to simulate worker representation as it is found in unions. Finally, in the assigned condition, subjects were assigned a goal equal to an average of those set in the other two conditions during two successive trials in a pilot study.

Task. The subjects were asked to work on a simulated scheduling task. They were given eight courses with at least ten different time and course offerings and asked to assemble as many nonconflicting and nonredundant course schedules as possible using any five of the eight courses. In order to increase external validity, the directions stated that the data were to be made available to the registrar's office staff. The task also enabled the researchers to set or encourage the setting of goals that appeared extremely difficult, but were actually not unreasonably difficult. (During a ten minute practice trial, the subjects were able to construct only two or three schedules. However, the task became much easier with practice).

Manipulations of goal-setting conditions. Performance goals were set for each experimental condition by the following manipulations:

(a) In the assigned condition, subjects were assigned a goal based on results from a pilot study using the participative and delegative manipulations for two successive twenty-minute trials. These assigned goals—10 and 25 schedules per person for phases 1 and 2, respectively—were achieved by 10% of the pilot subjects after two trials of 20 minutes each. The subjects were told, "Your goal is difficult, but our pilot research indicated that others have attained a goal of 10 (25) schedules." No other information was made available to them except the time limits of phases 1 and 2.
(b) Each representative group elected an individual to negotiate with the experimenter in setting the goal for each member of their group. Because group members lacked specific information about each other, the experiments suggested to them it would be wise to elect as representative the member with the most coursework completed or the greatest amount of summer or full-time work experience. The negotiator initially told the representative that they would barter for the group's goal. The negotiator attempted to match the goal in the representative condition to the one set for the assigned goal condition. Specifically, the negotiator asked the representatives, "How many schedules can your group produce per person? Our pilot research has indicated others can attain 10 (25) schedules." Next, the negotiator made a counter-offer equal to the assigned goal plus the difference between the representative's offer and the assigned goal—e.g., a representative offered eight, the assigned goal was 10, the negotiator's counter-offer was 12, and the negotiation settled on the middle point of 10.

(c) Each participative group was asked, "Please make a group decision for the goal each individual in your group will pursue in the first phase of the experiment. Our pilot research has indicated others can attain 10 (25) schedules." Specifically, the experimenter told the group that pilot research had indicated that others had attained a goal of X (where X = the number given in the assigned condition), and that their goals should be "... difficult, but realistic and obtainable."

By providing equivalent information concerning performance norms to the subjects in all the conditions, possible confounding effects from competition were held constant. No other information was provided to any of the conditions. Actual goals set by the representatives and groups ranged from 9 to 11 in phase 1 and from 24 to 26 (with one exception) in phase 2. Thus, goal difficulty was not significantly different \( (F_{2,113} = .48, \text{n.s.}) \) across goal-setting conditions.

Also, the experimenters relied upon standardized scripts to help ensure the goal-setting climate was consistent across strategies. In the group discussion, for instance, the experimenter merely gave the norm data from the pilot study and said that, goals should be "... difficult, but realistic and obtainable." The interpersonal style employed by the experimenter was the same as for the other conditions. Under no circumstances was any other information provided. In addition, the experimenters were blind to the hypothesis and were rotated across the various goal setting conditions to randomize experimenter effects.

Setting personal goals—set and no-set conditions. Subjects in the set condition were asked to write down their personal goals before the goal-setting manipulation. In the no-set condition the subjects did not write down their personal goals before the goal setting. Based on a pilot study, personal goals were expected to be far below group goals set in the participative or representative conditions; this discrepancy would be reflected by increased variance of goal acceptance for those individuals publicly committing themselves to some goal (Lewin, 1951). This manipulation may also introduce
goal conflict, thereby reducing acceptance of the externally set goal (Stedry, 1960).

**Goal acceptance measures.** A questionnaire determining the degree of goal acceptance was administered to subjects. Two items were used: the traditional form ("To what extent do you accept the goal?") replicating much of the previous research on goal setting, and an additional question with a minor variation in wording (changing "To what extent . . ." to "Do you really accept the goal that has been set?")

**Procedure.** Each subject was randomly assigned to one of six experimental conditions (assigned, delegative, and participative goal-setting crossed with set and no-set personal-goal conditions). The 20 subjects in each of the conditions were further divided into four parallel groups to keep group sizes manageable. All subjects were given a ten-minute practice trial to familiarize themselves with the task. Next, phase 1 began when subjects in the set condition were asked to write down their personal goals for the number of schedules to be correctly assembled within the following 20 minutes. (At this point, the subjects had only the practice trial on which to base their judgments). The performance goals for the subjects were then determined according to each group's respective goal-setting strategy—participative, representative or assigned. Subjects in the set condition were told to pursue their groups' strategy-determined goal rather than their personal goal. Subjects completed the individual acceptance questionnaire prior to beginning the 20-minute scheduling task, then worked for 20 minutes. The total time of this phase was 40 minutes. After completion of phase 1, all subjects were asked to repeat the entire process for phase 2. The purpose of phase 2 was two-fold: (a) increase the variance of individual acceptance by increasing goal difficulty from 10 to 25 schedules, and (b) provide an indirect check on the reliability and validity of the acceptance measure through response patterns of the subjects.

Upon completion of phase 2, a questionnaire was administered to the subjects to determine post-experiment commitment to the goal, opinions about the experiment's characteristics, and personal data; this was followed by debriefing.

**Manipulation checks.** (a) Participation: As a manipulation check, the participation effect was measured by two questions about the perceived influence the subjects had in goal-setting, and their perceived influence relative to the experimenters. Responses were rated on a 5-point Likert-type scale ranging between 1 (no influence) to 5 (complete control). Results demonstrated significant differences on a summed score for the acceptance items between the participative, representative, and assigned goal-setting conditions ($F_{2,113} = 4.03, p < .05$). The highest mean influence score on both questions was in the participative condition, and the lowest was in the assigned condition ($\bar{X}_{part} = 2.98, \bar{X}_{rep} = 2.48, \bar{X}_{assign} = 2.20$). Paired comparisons demonstrated that perceived influence was significantly different across the three conditions ($t = 7.23, p < .01$ for participative vs. representative; $t = 5.61, p < .01$ for representative vs. assigned).
(b) Goal Acceptance: Acceptance was measured by subjects’ responses to the two forms of individual goal acceptance. Since these two items were highly correlated ($r = .83$, $p < .01$), they were summed for subsequent analyses. Goal acceptance was significantly higher in the no-set than the set condition across the three goal-setting conditions (phase 1: $\bar{x}_{ns} = 5.85$, $\bar{x}_s = 4.75$, $p < .05$; phase 2: $\bar{x}_{ns} = 4.77$, $\bar{x}_s = 3.40$, $p < .05$). The same response pattern repeats itself in both phases, supporting the psychometric strength of the acceptance measure. The responses to these items were correlated across phases 1 and 2 ($r_{ns} = .53$, $r_s = .63$, $p < .01$). In addition, the final questionnaire contained a question on subjects’ commitment to their goal. Responses to this question are expected to be consistent with the goal acceptance measure. The mean commitment scores for the no-set and set conditions were 2.95 and 1.77, respectively, and were significantly different ($t = 3.83$, $p < .01$). The responses to the commitment measure were significantly correlated with the acceptance measure ($r_{ns} = .71$, $r_s = .85$, $p < .01$).

Results

Goal acceptance. Table 1 summarizes the means and standard deviations of individual goal acceptance in the six experimental conditions. A stepwise, hierarchical regression model was used to test the main effects of goal setting and the personal goal set manipulation upon individual goal acceptance, and to test for the interaction of goal setting with personal goal set manipulation.

| TABLE 1 |
| Laboratory Experiment: Means and Standard Deviations of Individual Goal Acceptance |

<table>
<thead>
<tr>
<th>Goal-Setting Condition</th>
<th>Phase 1</th>
<th>Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Personal Goal Condition</td>
<td></td>
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<tr>
<td></td>
<td>No Set</td>
<td>Set</td>
</tr>
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<td>Assigned</td>
<td>4.95</td>
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</tr>
<tr>
<td>Representative</td>
<td>5.85</td>
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<tr>
<td>Participative</td>
<td>6.75</td>
<td>0.55</td>
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</table>

Variables entered the regression equation in the following order: baseline performance, followed by goal setting condition and personal goal set, followed by the interaction term. The effects were coded for the treatment of categorical variables for a general significance test, as follows: (a) no-set and set condition were coded as 1 and 0, respectively; (b) assigned, representative, and participative goal setting conditions were coded $-1, 0, 1$, respectively. When a significant effect for goal setting conditions was found ($p < .05$), orthogonal contrasts were set up as follows: $D1$—comparing the assigned condition with the representative and participative conditions, coded as 2,
−1, −1, respectively; and D2—comparing the assigned and representative conditions with the participative condition, coded as −1, −1, 2, respectively. Findings for the regression analyses with these contrasts are summarized in Table 3(a).

The dummy-coded goal-setting contrast of D1, assignment versus the two other conditions, accounted for 14 percent of the variance in individual acceptance in phase 1 and 20 percent of the variance in phase 2. The personal goal set manipulation significantly increased the explained variance by about the same amount in phases 1 and 2 (ΔR² = .08; ΔR² = .09). The second contrast of D2, company participation with the two other conditions, was the third variable to enter the regression equation with a significant contribution only in phase 2 (ΔR² = .07, p < .05). There were no significant interaction effects in either phase. Overall, the goal setting contrasts and personal goal set manipulation explained 24 percent of the variance in phase 1 and 36 percent of the variance in phase 2. As expected, individual acceptance was the highest for the participative condition and the lowest for the assigned goal condition. The manipulation of personal goal set had a significant effect on the individual level of acceptance; acceptance was higher in the no-set than in the set condition.

A comparison between the two experimental phases indicates that individual goal acceptance significantly decreased (p < .01) from phase 1 to phase 2 for the assigned and representative conditions. Yet, individual goal acceptance did not change significantly for the participative groups. Thus, the increase in goal difficulty in the second experimental phase negatively affected goal acceptance in the representative and assigned goal conditions.

Performance. Mean performance scores for the practice trial (baseline) and phases 1 and 2 are presented in Table 2. A one-way analysis of variance (ANOVA) demonstrated a significant difference among the six conditions on the baseline performance (F5.119 = 2.49, p < .05). (The representative groups outperformed the other groups on baseline performance.) A stepwise, hierarchical regression analysis was used to remove the effects of the baseline performance from the manipulation effects and to test the effects of goal setting contrasts, personal goal set, and their interaction on performance.

The regression analysis, summarized in Table 3(b), demonstrated that baseline performance significantly explained 24 percent of the variance in phase 1 performance. Personal goal set manipulation, goal setting contrast D1 (assignment vs. the other two conditions), and the interaction of contrast D1 with personal goal set added significantly (p < .05) to the explained variance in performance. Overall, the effects of personal goal set, goal setting contrasts, and their interaction explained 17 percent of the variance in phase 1 performance over and above the baseline effect.

The significant effects are as follows: First, performance (controlling for baseline) was significantly higher in the no-set than in the set manipulation of personal goals. Performance in the assigned condition was significantly lower than in the representative and participative conditions (contrast D1).
<table>
<thead>
<tr>
<th>Goal-Setting Condition</th>
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<th>Phase 1</th>
<th>Phase 2</th>
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<td>Personal Goal Condition</td>
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<td>No-Set</td>
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<tr>
<td>2.28</td>
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<td>3.20</td>
<td>1.47</td>
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<tr>
<td>2.80</td>
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<td>2.41</td>
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TABLE 3
Regression Results for Performance and Individual Acceptance

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<th>Step</th>
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<th>Phase 2</th>
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<td>$F$</td>
<td></td>
<td>$R^2$</td>
<td>$\Delta R^2$</td>
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<td>.14</td>
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<td>.08</td>
<td>13.19*</td>
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<td>Participative vs. others (D2)</td>
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<td>Interaction 1 (D1 × PGS)</td>
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<td>(b) Performance</td>
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<td>(c) Performance</td>
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<td>.02</td>
<td>3.00</td>
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<td>4</td>
<td>Participative vs. others (D2)</td>
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<td>Assigned vs. others (D1)</td>
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<tr>
<td>5</td>
<td>Interaction 1 (D1 × PGS)</td>
<td>.41</td>
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<td>9.50*</td>
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<tr>
<td>6</td>
<td>Interaction 2 (D2 × PGS)</td>
<td>.42</td>
<td>.01</td>
<td>1.48</td>
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</table>

*p < .05
The interaction effect indicates that subjects in the participative and representative conditions outperformed those in the assigned condition only in the no-set goal manipulation.

Phase 2 performance was not affected by the experimental manipulation of goal-setting conditions.

Controlling for individual acceptance. It was hypothesized that differences between the participative and representative conditions and the assigned condition would only be significant when there was variance in individual acceptance. To test this hypothesis, a comparison was made between the goal-setting condition contrasts (D1, D2) with and without removing the effects of individual acceptance. A hierarchical regression model was used to remove the effects of baseline performance and individual acceptance. The results, summarized in Table 3(c), indicate that the goal setting contrasts and setting one's personal goal (phase 2) did not significantly contribute to the explained performance variance when the variance in individual acceptance was removed (see Table 3b). As goal acceptance increased, so did the contributions of the goal-setting strategies to the explained variance in performance.

STUDY 2

A field experiment was conducted to explore whether the results of the laboratory study were generalizable. Neither the representative strategy nor the personal goal set treatment could be used because of the limited size of the field sample. Thus, only the participative and assigned goal-setting conditions were examined. But, the focus of this study was the same — namely, the part played by goal acceptance.

Methods

Subjects. Participants were 20 male and female animal caretakers from the University of Illinois, Laboratory Animal Division. Subjects were required to perform the task as part of their job.

Design. The experimental manipulation consisted of two goal-setting conditions—participative and assigned.

Task. The subjects were asked to design some method of recording animal behavior on a daily basis. This method was adopted as the experimental task. Specifically, the task consisted of a checklist of behavioral symptoms (such as eliminatory behavior and breathing), which the subject would check as being either good, suspect, or bad. One such checklist corresponded to each animal under the worker's care. In addition to behavioral data, the subjects recorded the time and location of the observation along with their initials.

Goal. The experimenter asked the participative group members what the goal should be with regard to the newly devised task—the recording of behavioral observations. After a brief discussion, the groups decided by consensus that their goal should be to observe all the animals they cared for and record
their observations daily. In the case of small animals (e.g., rodents), entire
cages should be treated as a single entity.

**Manipulations.** The participative group jointly determined the task as
well as the goal for the task. The same goal and task were assigned to the
remaining group (N = 10).

**Procedure.** Subjects were randomly divided into two groups of 10 each —
one participative and one assigned group. All subjects were told that some
type of animal observations were required by national certifying agencies
and that the task was a means of satisfying this requirement. The participa-
tive group was then separated from the assigned group and asked to devise a
method of animal observation. After this, they were asked to discuss among
themselves an appropriate goal with regard to this devised task. The other
group was assigned the task and goal on a subsequent occasion. To ensure
comparable knowledge of the task across groups, the experimenter carefully
explained exactly what the task and goal were. After this briefing, subjects
were asked if anyone had questions. When the goals had been set, subjects
were asked to indicate their individual goal acceptance on a 7-point scale
prior to performance (1 = completely reject; 7 = complete accept).

One obvious source of confounding in the goal setting procedure could
be differential supportiveness across conditions. To reduce the chances of
this, the experimenter acted only in a reflective capacity during the group
discussion. Typical examples of the experimenter's comments include, "Will
that (the proposed task) satisfy the federal guidelines?" or "Is that a reason-
able but challenging goal for observation?" In the case of the assigned group,
the experimenter explained the task, then assigned the goal. The interper-
sonal style employed in both conditions was one of impartiality and
professionalism. To aid this impression, the experimenter was introduced to
all the subjects as a university consultant brought in to give recommenda-
tions on procedural changes.

Subjects then began the task. They recorded animal behavior daily for
two weeks; only the second week's data were analyzed to avoid confounding
due to any short-term acquiescence. (The performance patterns obtained in
week 1 were the same as week 2—see Table 4.) Data sheets were collected
at the end of each five-day work week by a supervisor who was blind to the
experimental conditions. At the end of week 1, group members were told in a
staff meeting their levels of performance during that week. After completion
of the second week of data collection, subjects received the post-experiment
questionnaire employed in study 1 and were then debriefed as to the nature
of the study.

**Results**

Data analyses tested for the effects of the experimental manipulations on
performance and goal acceptance.

**Acceptance.** Results of a one-way ANOVA showed that the participative
group was significantly higher than the assigned group on goal acceptance
($\bar{X}_{part} = 6.50$, $\bar{X}_{assign} = 4.20$; $F_{1,18} = 23.69$, $p < .05$). The goal setting variable
## TABLE 4
Experimental Field Study: Means and Standard Deviations of Performance

<table>
<thead>
<tr>
<th>Goal-setting condition</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Week 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assigned</td>
<td>.63</td>
<td>.51</td>
<td>.74</td>
<td>.44</td>
<td>.34</td>
<td>.62</td>
</tr>
<tr>
<td>Participative</td>
<td>.90</td>
<td>.35</td>
<td>.95</td>
<td>.42</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>(b) Week 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assigned</td>
<td>.75</td>
<td>.41</td>
<td>.54</td>
<td>.48</td>
<td>.60</td>
<td>.52</td>
</tr>
<tr>
<td>Participative</td>
<td>1.00</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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accounted for more than 50 percent of the variance between groups ($\eta^2 = .56$). In addition, pre- and post-performance acceptance measures were highly correlated ($r = .83$, $p < .01$) within conditions.

**Performance.** Performance scores were converted to ratios by dividing each subject's output by the predetermined goal. This procedure was used because workers did not have the same number and type of animals, but did have goals of comparable difficulty. Thus, the ratios represent performance relative to the goal of the individual. Mean performance scores are presented in Table 4 for days 1 to 5 and for all five days in weeks 1 and 2.

A series of one-way ANOVAs were conducted to determine whether the two strategies were significantly different across the five data periods of the second week and the average of all five. Results presented in Table 5 demonstrate that the participative group outperformed the assigned group in all the periods except the first day.

A stepwise, hierarchical regression performed on the summed data with the goal-setting condition coded as a dummy variable demonstrated that when variance due to individual acceptance was removed, the goal-setting manipulation (participative vs. assigned) did not significantly increase the explained variance ($R^2 = .47$) in performance ($\Delta R^2 = .08$, n.s.).

**TABLE 5**

Results of One-Way Analyses of Variance of Performance by Goal-Setting Condition

<table>
<thead>
<tr>
<th>Day</th>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Condition</td>
<td>31.50</td>
<td>1</td>
<td>31.50</td>
<td>3.71</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>152.92</td>
<td>18</td>
<td>8.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Condition</td>
<td>104.88</td>
<td>1</td>
<td>104.88</td>
<td>8.97*</td>
<td>.33</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>210.44</td>
<td>18</td>
<td>11.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Condition</td>
<td>80.00</td>
<td>1</td>
<td>80.00</td>
<td>6.00*</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>240.00</td>
<td>18</td>
<td>13.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Condition</td>
<td>63.36</td>
<td>1</td>
<td>63.36</td>
<td>7.39*</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>154.38</td>
<td>18</td>
<td>8.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Condition</td>
<td>56.11</td>
<td>1</td>
<td>56.11</td>
<td>6.80*</td>
<td>.27</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>149.52</td>
<td>18</td>
<td>8.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average condition</td>
<td>64.80</td>
<td>1</td>
<td>64.80</td>
<td>17.55*</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td>Average error</td>
<td>63.45</td>
<td>18</td>
<td>3.69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

**TABLE 6**

Results of Stepwise Regression of 5-day Average Performance on Individual Goal Acceptance and Goal-Setting Condition

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Individual goal acceptance</td>
<td>.47</td>
<td>.47</td>
<td>15.99*</td>
</tr>
<tr>
<td>2</td>
<td>Goal-setting condition$^a$</td>
<td>.55</td>
<td>.08</td>
<td>3.04</td>
</tr>
</tbody>
</table>

$^a$Assigned = 0; participative = 1.

*p < .05
Conclusions

The purpose of study 2 was to examine the potential of generalizing from the results presented in study 1. The findings of study 2 demonstrated that participative goal setting resulted in higher goal acceptance than did goal assignment, and that performance of the participative groups were significantly higher than the assigned groups only when individual goal acceptance varied.

DISCUSSION

The hypotheses were partially supported. Participative and representative goal setting significantly increased individual goal acceptance, and individual goal acceptance significantly contributed to performance. Participative and representative goal-setting groups did not significantly outperform assigned goal-setting groups when the variance in acceptance was removed (except for the interaction between personal goal set and the D1 contrast—a result similar to that obtained by Hannan, 1975). These findings may explain why differences between participation and nonparticipation are not significant in studies with no variance in acceptance (Latham & Saari, 1979).

Goal acceptance was originally discussed by Locke (1968) in relation to participation, but unfortunately the direction taken by the vast majority of research in goal setting was to test the relationship between participation and performance (Locke et al., 1981) without considering acceptance. In fact, a post hoc analysis revealed that acceptance measured after phases 1 and 2 was significantly correlated with performance ($r = .73$, $p < .01$).

The present study obtained variance in acceptance two ways. First, subjects were given or were encouraged to set a goal that appeared extremely difficult to attain; nevertheless, approximately 10 percent of the subjects in all the conditions were able to achieve their goals. When workers are presented a new task, they may perceive an associated goal as being too difficult until after the task is attempted. Tasks for which strong learning effects make initial goals seem unreasonable, or a task that is unfamiliar, may be rejected. Participative goal setting may be one way to increase goal acceptance on such tasks.

An additional manipulation, setting personal goals, demonstrated that we can also increase the variance in goal acceptance when subjects are provided formal, public, written opportunities to set their personal goals prior to externally set goals. The inconsistencies between the personally and the externally set goals were found to decrease goal acceptance. The mean goals for the set condition were 7.81 and 11.61, respectively, for trials 1 and 2, whereas the mean goals for the no-set condition were 10 and 25, respectively. Individual goal acceptance was significantly lower under the set than the no-set conditions ($p < .05$) in phases 1 and 2 of the lab experiment. The drop in acceptance when personal goals were set may very well be due to the public commitment of writing down one's personal goal. The personal goal was always discrepant with the group-set or assigned goal; this is how variance in acceptance was induced. Even lower levels of goal acceptance
occurred when subjects were asked to write down their goals. Lewin (1951) pointed out that public commitment can lead to goal internalization. The subjects in the set condition committed themselves to a personal goal publicly only to be manipulated by the goal-setting manipulations to some other goal. It is not surprising that their acceptance was lower than other subjects since they were, in effect, induced to publicly contradict themselves.

Individual goal acceptance was significantly \( (p < .05) \) affected by the goal-setting conditions: linear positive relations were found between the degree of participation and the level of goal acceptance. The relations were consistent in both the lab and the field experiments. Moreover, the level of individual goal acceptance remained stable across both experimental phases only for the participative group, whereas in the two other conditions goal acceptance significantly decreased \( (p < .01) \) from phase 1 to 2, probably because of the increase in goal difficulty. It seems that commitment to the participative group goal was stronger than the negative effect on increased goal difficulty of goal acceptance.

We conclude that goal acceptance varies across goals and tasks and that assigned goals are not always highly accepted. The nonsignificant differences in acceptance across various goal-setting conditions found in previous research may be attributed to common characteristics of these experiments: specific and difficult but attainable goals, goals that are perceived as attainable, and a prior compliance with the experimenter's requirements. The present findings also suggest one plausible reason why previous research has failed to find consistent differences between the effectiveness of participative and assigned goal setting: goal acceptance has varied in some studies but not others (see Locke and Schweiger, 1979, for a review of this literature).

Empirical support for the two-stage model was obtained in the field study and in phase 1 of the laboratory experiment. Level of participation was positively \( (p < .05) \) related to individual goal acceptance, and the latter was positively related \( (p < .05) \) to performance through its effect on goal acceptance. These relations disappeared when variance in individual acceptance was controlled. The same relational pattern of goal setting, individual acceptance, and performance appeared in phase 2 (see Tables 1 and 2) even though the goal-setting effect was not significant \( (p < .05) \), see Table 3).

The interaction effect on phase 1 performance of goal-setting condition contrast (D1) by personal goal set shows that the degree of participation was linearly related to performance for the no-set, but not for the set manipulation (see Table 2). It may be explained as an experimental artifact that should have been avoided. In the first phase, the participative group in the set condition set a goal that far exceeded that of the other two groups (14 vs. 10 schedules for the two others). Such a goal might have been too high, perhaps, discouraging subjects and resulting in low performance. In the second phase, the same group set the lowest goal (19 vs. 21 and 25 in the representative and assigned conditions, respectively) to avoid a second failure to reach the goal. Consequently, the participative group in the set condition underproduced, and the expected linear relations between degree of participation and perfor-
mance were not obtained. It is interesting to note that these findings are contrary to those presented by Campion and Lord (1982). These authors found that failure to reach an initial goal has short-term effects of setting new, higher goals so as to compensate for the earlier performance. We can only speculate that our subjects viewed phase 2 as the final part of the experiment — the completion of their participation in the study. If this is true, our findings would agree with Campion and Lord concerning the influence of initial failures on long-term goals (long-term goals will be lowered although short-term goals will be raised).

This pattern, however, was not found for the acceptance measure. Conflict (set vs. no-set) did not alter the response patterns from phase 1 to phase 2, indicating that acceptance is not the sole determinant of performance. Other unspecified factors may have interfered with subjects' performances. These findings do not negate the hypothesized effect of participation upon acceptance and performance, but suggest that other influences affect performance even if a goal is accepted.

How participation in a goal-setting procedure, even via a representative, influences the translation of goals into performance can only be speculated about at this time. One likely possibility is the perceived control an individual has over the goal (Bandura, 1977; Erez & Kanfer, 1983; Kanfer, 1980). If one participates in establishing a goal, then the perceived control over the goal may be considerably higher than when goals are externally assigned. Consequently, the internalization of the goal and influence on behavioral intentions and behavior may be enhanced in the former compared to the latter condition.

To summarize, this study showed that as goal acceptance increases, the influence of goal setting upon performance also increases. Participation in goal setting seems to be an effective strategy to enhance goal acceptance when individuals are presented a goal that they initially reject because they perceived it as being unreasonable or too difficult. Participation affects performance through its effect on goal acceptance.

Future research should focus on other factors that influence performance and goal acceptance, should examine variance in acceptance of goals, and should investigate how participation affects goal acceptance and subsequent performance.

REFERENCES


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