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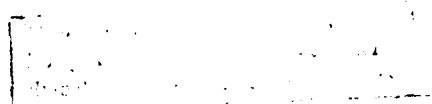
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The Effects of Socially
Provided Task Information on
Task Perceptions,
Satisfaction and Performance

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Abstract

One hundred eighty-nine female subjects worked on a clerical task under either 1 or 3 person social influence conditions in which positive, negative or neutral affective information about the task was presented to the subjects by confederates of the experimenter. The effects of these different social influence conditions on task satisfaction, performance and task perceptions were examined. Subjects in the negative influence conditions expressed lower levels of task satisfaction but did not perform differently or perceive the task differently than subjects in the positive or neutral conditions. The one of three persons influence manipulation had no effect on satisfaction or perception and only a marginal effect on performance. The results are discussed in terms of social influence processes in actual job redesign situations.

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Most of the research to date on the effect of job design on worker productivity and job attitudes has suggested that an employee's reactions to a redesigned job are a function primarily of: (1) the "objective" changes made in the nature of the job, and (2) personal characteristics of the worker such as worker alienation, higher order need strength, or belief in the protestant work ethic (Aldag & Brief, 1979; Blood & Hulin, 1967; Hackman & Oldham, 1976; Stone 1975, 1976, 1978; and White, 1978). However, research conducted in the last 2-3 years has begun to broaden our view of those factors which can effect the success of job design efforts. Salancik & Pfeffer (1977) and Shaw (1980) have pointed to the importance of social influence processes in determining how workers will react changes in their job duties. These authors suggest that an employee's perception, evaluation and reaction to job transitions will be determined not only by the "objective" nature of the new job, but also by the definition of that job provided to the worker by his/her socially relevant others. Support for this notion has been provided in several recent studies.

In a study by White, Mitchell & Bell (1977) subjects were given positive and negative information about a task from socially relevant coworkers. Greater productivity, perceived job pressure, and lower reports of boredom were found in the positive information conditions. No significant effects on reported job satisfaction were found. White & Mitchell (1979), in a similar study, found higher reported levels of skill variety, task "motivating potential" (Hackman & Oldham, 1976), and satisfaction in positive social cue conditions than in negative social cue conditions. Positive social cues also resulted in higher performance on the task. O'Reilly and Caldwell (1979), using written information, found that socially provided positive task information resulted in higher reported levels of skill variety, autonomy, task

significance, and satisfaction than did negative task information. In the above studies, the information provided to the subjects by socially relevant co-workers was typically of a fairly specific nature (e.g. "there is a lot of freedom to do the job as you want it"). In a study by Weiss and Shaw (1979) however, subjects were provided task information of a very general nature (e.g. "I like doing this", or "I don't like doing this"). Socially provided information of this very general nature nevertheless had significant effects on task perceptions. Positive information resulted in significantly higher reported motivating potential scores (MPS, Hackman & Oldham 1976) than did negative information.

The present study was designed to investigate further the effects of socially provided task information on task performance, task satisfaction, and perception of task characteristics. This study addressed two issues not previously included in research on social influence of task perceptions. In the studies cited above, subjects were asked to work on a task--typically a task they had never done before. Social information was then provided to the subjects about this task. In most job transition situations this type of situation does not occur. Rather, workers who have been working on a job for some time move into a job that is different in many respects from the previous job, but still includes a large component of the old job. The present study was designed to investigate whether or not socially provided task information which has been found to have very significant effects on the perception and evaluation of a "new" task would have similar effects in situations where a task represented simply a modification of a previous work situation.

Additionally, this study addressed the issue of precisely what characteristics of socially relevant others effect whether information provided by these "others" would influence worker task perceptions/evaluation/reactions. Shaw

(1980) suggested that a worker receiving information about a task from external sources will evaluate the relevance of that information before incorporating it into any task judgment process. Research on social influence (Asch, 1951, 1952, 1956) and on attribution theory (Goethals, 1972; Kelley, 1967) indicates that information provided by more than one significant other is more persuasive and more likely to be incorporated into an individual's judgment processes than is information provided by a single significant other (by "significant other" we mean that the influencer is perceived as reasonably similar to the person being influenced and is judged to be competent enough to make statements about the task situation). Attribution theory would suggest that information provided by a single individual can more easily be discounted as "idiosyncratic" than can information provided by several individuals. Thus, an hypothesis of the present study was that social influence of task perceptions and evaluations will be greater when the influence is carried out by *three individuals* as opposed to a single socially relevant other. Specifically, when positive/negative information is presented by three socially relevant others, task perceptions will be more/less favorable, and task satisfaction and performance will be greater/less than when the positive/negative information is presented by a single individual.

METHOD

The study represented a 2X3 factorial design with two levels of social influence (one vs three persons) and three task information conditions (positive, neutral, negative). Confederates of the experimenter were used to provide the task information. Data on task satisfaction, task performance and perception of task characteristics were collected. Additionally, data relating to the effectiveness of the experimental manipulations, the perceived similarity of the social others to the subject, the perceived

competence of the social others, and the "believability" of the socially provided information were obtained.

Subjects

Eighty-nine female students from the introductory psychology course of a large southwestern university participated in this study as part of their course requirement. While the subjects were required to participate in some experimental research during the semester, students were allowed to choose the specific study in which they participated. Subjects ranged in age from 18-22 years. Female subjects were used to maximize the similarity between subjects and confederates in the study. The confederates used in the study were sophomore, junior, and senior psychology students who were working for the author as part of an "independent study" class. All confederates were female and ranged in age from 19-22 years.

Tasks

This study involved the use of two tasks. In the first task, subjects were required to work individually to "code" data found on computer printouts containing the name, address and "tax analysis information" for a large number of individuals. Specifically, the tax analysis information consisted of a series of numbers, which, according to an instruction sheet attached to each printout, represented such information as the value of the individual's home, the size of their lot, the value of the lot, an identification number for the individual, the number of years the person had lived at the address, etc. The initial task required each subject to summarize the information found on the computer printouts onto a "tax survey summary sheet" using a coding system provided by the experimenter.

After working on the first task, subjects were asked to work on a "new" task. This second task also utilized computer printouts containing tax

information. Two computer printouts were used. On one, the names, addresses and tax analysis information on a large number of persons was alphabetized according to the last name of the individual. On the second computer printout, the same information was alphabetized according to the address. The second task required subjects to work together (a subject-confederate pair) to "verify" the data in the two printouts. In each pair, the subject was given a "tax data verification sheet" and instructed to work with her co-worker to insure that the data on the two printouts were identical and that the data had been put in the correct place on the sheets. The subject then worked with her partner and recorded any mistakes on the "verification sheet" provided by the experimenter. The subject and her partner were told to verify as much of the data as possible. The task was designed and instructions were given to insure that the subject set the pace of work in the second task.

In the case of both tasks, performance scores were calculated in the same way. Task performance equaled the number of items (i.e. the data on one individual) which the subject had successfully coded or verified. Only quantity of performance was used, since almost no variability in quality of performance (correct coding or verification) was found in pilot testing.

Task satisfaction

Task satisfaction was measured using a six point, strongly agree-strongly disagree rating scale. Four items measuring satisfaction had been developed earlier by Shaw (1978), and these items were used in the present study. Internal consistency reliability (coefficient alpha) was .83.

Perception of Task Characteristics

Items from the Job Diagnostic Survey (Hackman & Oldham, 1975) were selected to measure the perceived levels of autonomy, task identity, skill variety, task significance, and task feedback. Each dimension was measured using four

items from the JDS which had been modified slightly to make the wording of some items more appropriate for the present study. Internal consistency reliabilities for the scales were: autonomy = .77, task identify = .58, skill variety = .25, task significance = .73, and task feedback = .75. An overall perception of task characteristics score (TCS) was derived by averaging the autonomy, feedback and task significance scales. It had originally been intended to use Hackman and Oldham's (1976) Motivating Potential Score (MPS) as an index of overall task perceptions. The MPS was not used due to the low coefficient alphas associated with the task identity and variety scales. Items from these two scales were analyzed separately.

Other Measures

Using a six point rating scale (strongly agree - strongly disagree), three items were constructed to measure the positiveness, negativeness or neutrality of the socially provided task information. Coefficient alpha for this scale was .77. Two items were used to measure the perceived similarity of the confederates to the subject. Item intercorrelation was .65. Single items were used to measure the believability of the socially provided task information and the perceived competence of the confederates to make judgments about the tasks.

Social Influence Conditions

Positive, negative or neutral task information was provided verbally to each subject by either one or three experimental confederates. Prior to the experiment confederates took part in several practice sessions to insure that each confederate could effectively present the necessary information. Debriefings conducted early in the study indicated that the subjects had no idea that their partners were "fakes" or that the statements made by the confederates appeared phoney in any way. The information provided to the subjects

was of a very general affective nature as was used in Weiss and Shaw (1979).

One person influence conditions. During the second task session, each subject was paired with a confederate. Each subject-confederate pair was taken to a separate room in which to work on the second task.

Three person influence conditions. During the second task session, one subject and three confederates worked together in the same room. The subject was paired with one confederate, while the other two confederates worked together. The confederate-confederate work team had been instructed prior to the study to work at a pace consistent with that set by the subject-confederate pair so as not to influence the performance of the subject.

Positive influence conditions. In the 3-person influence condition, after having worked on the second task for approximately ten minutes, the three confederates made the following statements:

Person 1 - "At least this is better than what we had to do first."

Person 2 - "Yea, at least we get to work together."

Person 3 - "Yea, this isn't bad at all."

In the 1-person influence condition, the confederate, after working with the subject for approximately ten minutes said:

"Well, at least this is better than what we did before. At least we get to work together."

Five minutes later, the confederate said:

"I've heard about some of the things that people have had to do in other experiments. I think we really lucked out. This isn't bad at all."

Negative influence conditions. In the 3-person influence condition, after working on the second task for approximately ten minutes, the three confederates said:

Person 1 - "I wonder if people really have to do this sort of thing all day?"

Person 2 - "If they do I sure feel sorry for them!"

Person 3 - "This is terrible."

In the 1-person influence condition, after working on the second task for approximately ten minutes the confederate said:

"I wonder if people have to do stuff like this all day? If they do, I really feel sorry for them!"

Approximately five minutes later the confederate said:

"I'll sure be glad when this is over. It's terrible."

Neutral information conditions. In the neutral, one and three person conditions, the confederate(s) said very little about the task. Comments were restricted to the weather, what they had done prior to coming to the experiment, etc. At no time did the confederates say anything concerning their feelings towards the task. If the subject initiated any positive or negative statements about the task, the confederates responded with non-committal remarks such as "Oh, I don't know."

General Procedure

Confederates and subjects arrived at the laboratory at essentially the same time. At all times during the experiment confederates were treated in a manner identical to that of the real subjects. Confederates had been assigned false names and had signed up on the experimental sign-up sheets just as had the subjects. In the 3-person influence conditions, one subject and three confederates participated, while in the 1-person influence conditions, three subjects and three confederates took part.

The participants were told that they were taking part "...in a study to investigate the effects of different types of training methods on teaching

people to do a tax survey task. This study is being funded by a group of governmental agencies in Texas. These agencies are interested in finding out the most effective and cheapest way to train people to conduct tax surveys for them." Participants were told they would be working on some tax survey tasks, and would be asked to fill out some questionnaires.

Instructions on how to do the first task were then read to the participants. Subjects and confederates worked individually on the first task for 15 minutes. Following completion of the first task session, subjects and confederates were read the instructions for the second task. The experimenter then "randomly" assigned the participants to work pairs, insuring that the real subject(s) was paired with a confederate. In the 3-person influence conditions, the subject and confederates were then allowed to work on the second task for 30 minutes. In the 1-person conditions, subject-confederate pairs were taken to individual work rooms ("so as not to disturb each other") and then allowed to work on the second task for 30 minutes. During the second task session the social influence manipulations took place. After the second task work session subjects and confederates were placed alone in rooms and were asked to complete two questionnaires. In actuality, confederates were allowed to leave the laboratory so that they would not be seen by subjects arriving for the next experimental session. After they had completed the questionnaires, subjects were debriefed and dismissed.

RESULTS

Analysis of variance procedures were used to examine the effects of social influence condition (positive, neutral, negative) and number of socially relevant co-workers (one, three) on satisfaction, performance, and perception of task characteristics. All data were scored so that the higher the numerical value the greater the level of satisfaction, performance and perceived task

characteristics. Since no differences were found between the results for the overall task characteristics score (TCS) and the individual task perception scales, only the results for TCS are presented.

Manipulation Checks

Subjects were asked to rate how their partners (the confederate(s)) felt about the second work task. As expected a significant effect for social influence condition was found, $F(2,81) = 33.10, p < .001$. Confederates in the positive influence conditions were rated as having a significantly more positive attitude towards the task ($\bar{X} = 4.32$) than did confederates in the negative influence conditions ($\bar{X} = 2.56$) with confederates in the neutral conditions falling between the two extremes ($\bar{X} = 3.54$). No significant effect for number of influencers was found on this variable.

No significant effects for either the type of influence or the number of influencers were found on the perceived similarity of the confederates to the subject (overall $\bar{X} = 4.4$) or the perceived competence of the confederates to judge the task (overall $\bar{X} = 4.8$). The overall mean similarity and competence levels indicate that in all conditions subjects' perceived the confederates as similar to themselves and competent to judge the task situation. A main effect for the number of influencers on the "believability" of socially provided information was expected, but was not found (\bar{X} 1-person = 4.6, \bar{X} 3-person = 4.4).

Major Dependent Variables

The results of the ANOVA relating to the task satisfaction can be found in Table 1. As expected a significant main effect for type of influence condition was found. Subjects in the negative influence conditions showed significantly lower levels of task satisfaction ($\bar{X} = 2.5$) than did subjects in the neutral ($\bar{X} = 3.4$) or positive influence conditions ($\bar{X} = 3.3$). No significant

effect for number of influencers was found nor was there any significant influence X number interaction.

Data relating to the ANOVA on task performance are also found in Table 1. Although subjects in the positive and neutral conditions were more satisfied with the task than were subjects in the negative influence conditions, this increased liking for the task was not associated with higher levels of performance. No significant differences for performance among the type of influence conditions were found. A marginally significant effect for the number of influencers on performance indicated somewhat higher levels of performance in the 3-person influence conditions ($\bar{X} = 55.3$) than in the 1-person influence conditions ($\bar{X} = 50.8$).

ANOVA results presented in Table 1 show that higher satisfaction with the task in the neutral and positive influence conditions was not associated with the subjects' perception that the task had higher levels of various task-relevant characteristics (TCS). No significant main effects for type of influence or number of influencers were found, on TCS.

DISCUSSION

This study was interested in examining two major issues relating to the effects of social influence processes on task perceptions/evaluations. First, this study was designed so as to investigate the effects of social influence in situations where the influence is directed towards "new" task situations which involve a significantly large component of a previous task. Second was the question of whether the strength of the social influence could be effectively manipulated by increasing the number of individuals providing the task information.

Concerning the first issue, the results of this study are somewhat different from those in which the task situation being influenced was totally new

to the subjects (O'Reilly & Caldwell, 1979; Weiss & Shaw, 1979; White & Mitchell, 1979; White, Mitchell & Bell, 1977). In all of these studies, socially provided information was typically effective in altering the subjects' reported perceptions of the characteristics of the task itself, e.g. the amounts of variety, autonomy, or task significance. Also, effects of social influence on task satisfaction were usually found. In the present study, although satisfaction with the task (i.e. the subjects reaction to the task characteristics) was altered, no such effect of socially provided task information on actual perceptions of the task was found.

In the previous studies, subjects in different influence conditions (positive, negative, or neutral) seemed to react to the task differently, because they perceived the characteristics of the task to be different. Thus in a positive influence condition, subjects were more satisfied with the task because they perceived the task as having higher levels of such characteristics as variety, autonomy, task identity as feedback. In negative influence conditions subjects were less satisfied because they thought the task had lower levels of these characteristics. In the present study, social influence resulted in different reactions across conditions even though subjects in the different conditions perceived the characteristics of the task to be essentially the same. One might argue that when a task consists of characteristics which are very similar to characteristics of a previously worked on task, it becomes more difficult for social influence processes to change an individual's perceptions of the actual task characteristics. If this is true, then social influence of the perception of and reaction to tasks would be of a more general and long term nature when this influence is carried out in new task situations rather than simply in changed task situations. A more definitive

statement on this matter requires more research in which the degree of change in task situations is systematically varied and the effect of social influence under these different change conditions is examined.

Concerning the second issue addressed by this study, the results are not consistent with previous research by Asch (1951, 1952, 1956) and others. No significant effects of the number of influencers on either satisfaction or task perception were found. No differences in the "believability" of information provided by one person vs three person was found. Subjects utilized the information presented in both the one and three person condition in an equal fashion in making judgments about the task. In terms of Anderson's (1968) notion of a judgmental "predisposition," the lack of a significant finding may have been the direct result of the effect of the first task on the judgment of the second. Subjects, because of their experience with the first task, may have developed such a large predisposition towards the second task, that the difference in "influence power" between the one and three person conditions was "overwhelmed" by the initial predisposition. An alternative explanation may be that subjects experienced a certain degree of "reactance" (Brehm, 1966) to the information provided in the three person influence condition which served to reduce the overall effect of their information about the task. Brehm (1976) notes that the "...more competent the individual feels ... the more reactance is aroused by a threat to his freedom..." (p. 62). In this study subjects in all conditions rated the difficulty of the second task as quite low ($\bar{X} = 1.38$ on a 6-point scale with 6 indicating the highest level of difficulty). Since subjects perceived the task as relatively easy, one might assume that they felt quite competent to perform to task. This felt competency, particularly in the 3-person influence conditions where the "threat to his freedom" was most strong, may well have resulted in significant reactance effects.

The fact that a marginally significant effect for number of influencers on task performance was found does not in any way contradict the above explanations. Rather than being part of any "task judgment process", the effect of number of influencers on performance can most easily be explained in terms of competition or social facilitation (Schachter, Ellertson, McBride & Gregory, 1951) effects.

In conclusion the present study is suggestive in nature. Considerable research remains to be done which examines the interaction of degree of task change, type of socially provide task information and the number of relevant others providing that information. This study suggests that the short term and perhaps long term effects of socially provided task information may depend upon the subject's past experience with similar tasks and the degree of similarity between the new and old tasks. Likewise, this previous task experience and similarity of experience may well determine our ability to manipulate the strength of social influence by altering various characteristics of the influence process.

Table 1. ANOVA Results on Task Satisfaction, Task Performance and Perception of Task Characteristics

<u>Source</u>	<u>df</u>	<u>Satisfaction</u>		<u>Performance</u>		<u>TCS</u>	
		<u>MS</u>	<u>F</u>	<u>MS</u>	<u>F</u>	<u>MS</u>	<u>F</u>
Influence	2	27.01	5.22**	149.65	1.54	.445	< 1
Number	1	3.82	< 1	358.51	3.68+	.113	< 1
IXN	2	1.08	< 1	52.97	< 1	.172	< 1
Error	81	5.17		97.48		.639	

+ P < .06

** p < .01

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LIST 5
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Naval Postgraduate School
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Newport News Shipbuilding &
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Commanding Officer
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Commanding Officer
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