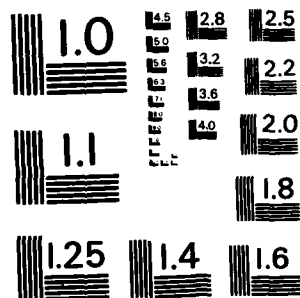


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Organizations As Information Processing Systems

Office of Naval Research
Technical Report Series

Social Cues As Information Sources:
Extensions and Refinements

Ricky W. Griffin
Thomas S. Bateman
James Skivington

TR-ONR-DG-03

September 1983

Department of Management
Texas A&M University

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Richard Daft
and
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Principal Investigators

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follow-up studies designed to test the effects of cue frequency were then conducted. Again, few significant results were obtained. Patterns of findings across all published SIP laboratory studies are then assimilated and discussed. Finally, implications for future theoretical and empirical research are explored. *4*

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Social Cues as Information Sources:

Extensions and Refinements

The social information processing model of task design (Salancik & Pfeffer, 1978) has been the catalyst for a great deal of research since its original presentation. This model makes four basic assertions concerning the task design process: (1) an individual's social environment provides cues as to what dimensions should be used to characterize the work environment, (2) the social environment provides information as to how these dimensions should be weighed, (3) the social environment provides information about how others evaluate the work environment on each dimension and, (4) the social environment may provide a direct evaluation of the work setting along positive or negative dimensions (Pfeffer, 1981).

To date, most published studies designed to directly test the social information processing (SIP) model have been laboratory experiments (O'Connor & Barrett, 1980; O'Reilly & Caldwell, 1979; Weiss & Shaw, 1979; White & Mitchell, 1979). The basic design of these experiments has consisted of one factor varying objective task elements (enriched or unenriched) and a second factor varying social cues about the task (positive or negative/neutral). Cues have been provided by a variety of means, including verbal comments by a confederate, verbal cues imbedded in a training film, verbal directions by the researchers, and written comments attributed to a variety of sources.

In general, these studies have provided consistent support for the assertion that social information plays a role in shaping task perceptions and/or reactions. Each study found that main effects for social cues on task perceptions and/or reactions were just as pronounced as main effects

for objective task elements. However, recent reviews of these and related studies (Blau & Katerberg, 1982; Thomas and Griffin, 1983) found the research deficient along a variety of dimensions. In particular, one or both of these reviews identified the following problems with the existing body of literature: (1) only unanimous cues have been tested, even though mixed cues are likely in field settings, (2) cues from particularly credible sources, such as leaders, have not been tested, (3) important individual difference variables, such as authoritarianism and field dependence, have not been systematically integrated into SIP research, (4) task ambiguity and subject exposure to task conditions have not been addressed, and (5) multiple information sources have yet to be examined.

Criticism number 2 has recently been addressed by Griffin (1983) in a field experiment. Significant main effects for both objective task attributes and social cues from supervisors on task perceptions and reactions were observed in two manufacturing settings. Similar results were obtained in a laboratory pre-test. Again, however, only one information source was examined and the loss of experimenter control in field settings at least raises the possibility of rival hypotheses.

Hence, there is clearly much to be done if the preliminary findings regarding the SIP model are to be more competely understood. Further analysis of each of the laboratory studies cited earlier also reveals other striking deficiencies which must be addressed if we are to place credence in their findings. White and Mitchell (1979), for example, used a confederate co-worker to make 12 verbal cues during a 90 minute work session. An average of one cue every 7-1/2 minutes is perhaps not a realistic model of a real work setting. O'Reilly and Caldwell (1979) had subjects read hand-written

evaluations of the experimental task (purportedly filled out by previous subjects but actually used to manipulate positive and negative cues) after completing the task and immediately before administration of the post-experimental questionnaire. Hence, results may be at least as attributable to demand characteristics as to actual experimental effects.

Weiss and Shaw (1979) employed a more realistic design and obtained clear results. However, in a strict sense, their study focused more on training and formal socialization than on task design. Positive cues were made about attitudes rather than task perceptions, no negative cues were provided, and the frequency of cues was even higher than in the White and Mitchell study (four cues in 10 minutes for an average of one every 2-1/2 minutes).

Finally, O'Connor and Barrett (1980) do not provide sufficient detail to determine exactly how many social cues were made. However, they do note that cues were provided for each of four task dimensions and by three means (written task instructions, message cards that were a part of the task, and tape recorded comments that were part of the training instructors). Hence, it can be inferred that at least 12 cues were provided during a three hour period of time. While one cue every 15 minutes is not as extreme as the studies noted above, it may still be an unrealistic representation of the work environment, especially considering the salience and unanimity of the cues.

In summary, beyond the criticisms raised earlier from the Blau and Katerberg (1982) review, the laboratory studies conducted to date have involved extremely artificial situations in which unanimous cues have been provided with unrealistic rapidity and/or through contrived means. Katz

(1980, p. 113) has recently noted "some social psychological experiments have clearly shown that if people are put in a rather atypical and absurd situation, they can be made to respond in a rather atypical and absurd fashion." While none of the laboratory studies cited could be considered absurd, they are all quite atypical of a normal work setting. It follows, then, that subjects may have also responded in a rather atypical fashion. Yet, given the problems of control inherent in field settings, it seems that further laboratory research is needed to get at many of the salient issues implicit in the SIP framework.

The studies reported in this paper were designed to offset as many of the previously discussed weaknesses and shortcomings as possible in order to provide a more realistic test of the SIP model while still retaining the control characteristic of laboratory research. In short, the objectives of the primary study were to test the effects of objective task elements and social cues on task perceptions and affective reactions under the following conditions: (1) when cues are both unanimous and contradictory, (2) when cues come from both a similar other (a co-worker) and from a particularly credible other (a leader), (3) when important individual difference variables are considered, and (4) when the frequency and method of delivery of cues are more realistic. Contingency plans were also developed to conduct follow-up studies focusing on especially interesting and/or unexpected findings in the primary study.

Method: Primary Study

The primary study was designed to include three independent variables: task design, social cues from a co-worker, and social cues from a leader. There were two levels of each variable (enriched vs. unenriched task design,

positive vs. negative co-worker cues, and positive vs. negative leader cues). Hence, a 2x2x2 factorial design was used. Dependent variables of interest included task perceptions and affective responses. Key individual difference variables included field dependence, a correlate of susceptibility to influence used in earlier studies) and authoritarianism (Adorno, Frenkel-Brunswick, Levinson, and Sanford, 1950), because of its presumed relationship with social influence by a leader.

Subjects

Subjects for the study were 88 undergraduate business students at a large Southwestern University. Subjects were recruited from an introductory management class and paid \$5 for their participation. They were told that the study was testing different methods for analyzing financial data. Two subjects were dropped because they expressed suspicions about the study. The final sample of 86 students consisted of 47 males and 39 females. (Ten additional students were used earlier to train the experimental confederates.)

Procedure

One subject and one experimental confederate playing the role of another subject were scheduled to arrive at the experimental setting at the same time. They were greeted by a graduate assistant and escorted to the work room. The assistant introduced both of them to their supervisor (another confederate) by asserting that the supervisor had been hired because of his previous experience and knowledge about their particular kind of work. The assistant then left the work room.

The supervisor next explained how the task was to be performed. The script for these instructions was carefully prepared so as to be as objec-

tive as possible and to not provide any inadvertant or unintended cues. After answering any questions, the supervisor provided evaluative cues reflecting his personal feelings about the task, instructed the subjects to begin work, and then left the room for a few moments. The confederate co-worker then provided his own evaluative cues about the task. The supervisor re-entered the room, noted that the workers should not talk as they worked, and then sat behind a desk at the front of the room and pretended to be doing paperwork.

After 25 minutes, the supervisor said that he needed to make a quick phone call, indicated that the workers could take a brief rest, provided another set of evaluative cues consistent with his earlier cues, and then left. The confederate co-worker next provided his second set of evaluative cues, also consistent with his earlier cues. The supervisor then re-entered the room, and all three went back to work. After another 20 minutes, the graduate assistant came in and terminated the work session, took the two workers to different rooms, and administered a post-experimental questionnaire to the subject. The subject was then paid and informed that a debriefing would take place at the end of the semester. (Note: This procedure was carefully designed to balance the timing, magnitude, and frequency of the cues and also to minimize casual conversation which could provide unintended cues.)

Manipulations

Task Design. The task used was the same as that developed by White and Mitchell (1979). In the unenriched condition, subjects were assigned names of stocks listed on the New York Stock Exchange, looked up several weeks of closing prices for those stocks from photocopies of New York Stock Exchange

quotations, and recorded them on coding forms. Completed work was removed from workers' desks every few minutes. Subjects were also told that this was only one part of a more complete process. Hence, the task had low levels of autonomy, variety, identity, and feedback.

In the enriched condition, subjects chose the stocks themselves, looked up fewer weeks of closing prices, calculated percent change from week to week, and graphed these changes on graph paper. Completed work was allowed to accumulate so the workers could see the results of their efforts. They were also told that this was the complete task. Higher levels of autonomy, variety, identity, and feedback were, therefore, present.

The rationale for using this task was that it is realistic and has been pre-tested and used before. Hence, it should provide a logical extension of previous findings.

Leader Cues. The supervisor provided either positive or negative cues about the task designed to focus on specific task dimensions and to also provide an evaluative perspective. For example, positive cues from the leader at the beginning of the work session took the following form: "I think you'll like this job. You get to do several different things, and you get to choose how you do them. Not only that, you do the whole thing, and you know what you've done when you're finished." Consistent positive cues for the second conversation and two parallel negative cues were also carefully framed. The rationale for using the leader as a source of cues was the presumed credibility of a person in a leadership role and the significant effects of leader cues found by Griffin (1983).

Co-Worker Cues. The co-worker also provided either positive or negative cues about the task designed to provide both evaluative and task-speci-

fic perspectives. For example, the initial positive cues from the co-worker took the following form: "I agree [or disagree, when the leader's cue was negative] with what he just said. It looks like we'll get to do several different things, and it'll be nice to decide ourselves how to do it. I'm also glad we'll be doing the whole job, instead of just part of it, and it'll be interesting to see how many of these we can do." Carefully constructed positive cues for the second conservation and two parallel negative cues were also developed.

Two other points regarding the manipulation are also relevant at this point. First, the wording of each set of cues was tailored to fit both the task and the other cues as closely as possible in order to maximize realism. Second, a total of four different well-trained confederates, all males, participated in the study. The assignment of two confederates to each subject and the assignment of each confederate to the two different roles was done randomly.

Measures

Six task characteristics (autonomy, identity, variety, feedback, dealing with others, and friendship opportunities) were measured by the Job Characteristic Inventory (Sims, Szilagyi, and Keller, 1976). Intrinsic, extrinsic, and overall satisfaction were measured with the MSQ (Weiss et al., 1967). Satisfaction with job, co-workers, and supervisor were each measured by four items developed specifically for this study (e.g., "My supervisor made my work more satisfying," "This job was fun to do," and "My co-worker was a pleasant person to work with"). In addition, six items were developed to measure each of the two cue manipulations (e.g., "My co-worker exhibited a 'good attitude' toward the job," and "I think my supervisor would be happy

doing my job"). Authoritarianism was measured with the California F-scale (Adorno et al., 1950). Field dependence was measured by the embedded figures test (Jackson, 1956). Cronbach's alpha for these measures ranged from .60 (autonomy) to .93 (co-worker manipulation check), with a median of .795.

Results: Primary Study

The effectiveness of the two social cue manipulations was tested via analysis of variance, using the two manipulation checks as dependent variables and the three experimental manipulations as independent variables. There was a significant main effect for co-workers' cues on the manipulation check for perception of co-workers' attitudes ($F_{1,75} = 55.327, p < .0001$). Similarly, there was a main effect for supervisors' cues on the corresponding manipulation check ($F_{1,75} = 33.347, p < .0001$). Neither manipulation check was effected by the other independent variables or by any interactions. As such, the social cues manipulations clearly had their intended (strong) effects, and these independent effects were not confounded by non-corresponding experimental variables.

Twelve dependent variables--six task perceptions, three specific facets of satisfaction (with job, co-worker, and supervisor), and three general satisfaction indices (intrinsic, extrinsic, and overall)--were analyzed next. Each was tested using co-workers' cues, supervisors' cues, and the objective task manipulation in a three-way analysis of variance. The primary results of these analyses are presented in Table 1.

 Insert Table 1 about here

As can be seen, none of the six task perceptions were affected (at $p <$

.05) by any of the three independent variables or four interaction terms.

(Only interactions approaching significance are presented in the Table.)

Among the satisfaction measures, there was a significant main effect for the objective task manipulation on job satisfaction ($F_{1,75} = 6.578, p = .012$). Supervisors' cues had a significant impact on intrinsic satisfaction ($F_{1,75} = 7.218, p = .009$) and overall satisfaction ($F_{1,75} = 4.290, p = .010$). Co-workers cues affected satisfaction with coworkers ($F_{1,75} = 6.039, p = .016$) and extrinsic satisfaction ($F_{1,75} = 4.290, p = .042$). The latter finding was incongruous with the others, in that positive cues resulted in lower extrinsic satisfaction than did negative cues. Of the 37 other test statistics, only three scattered interaction effects were significant. In sum, 76 of the 84 tests were insignificant.

Authoritarianism and field dependence were also investigated, each in interaction with the two social cues variables. The four resulting two-way interactions were tested for their effects on the twelve dependent variables. Forty-six of the 48 tests were nonsignificant (at $p \leq .05$). The two significant findings could be expected to arise by chance alone.

These results were quite unexpected, given the consistent pattern of cue effects obtained in the earlier laboratory studies. Hence, it was decided to conduct two follow-up studies focusing on the major differences between this study and earlier studies. The two most obvious differences are in the number of cue sources and in the frequency of cues. One explanation for the results obtained could be that subjects had so many sources of information (task, leader, and co-worker) that they could not focus on specific cues. Second, the fact that cues were provided with less frequency than in previous studies could also account for the lack of consistent findings.

Method: Follow-Up Studies

Follow-up study 1 tested the effects of two independent variables: cues from a supervisor (positive vs. negative) and cue frequency (2 vs. 8). Dependent variables were the same as used in the primary study (task perceptions and affective reactions).

Forty undergraduates participated in this study. The same basic procedure was used as in the primary study. A different confederate was trained to play the supervisor's role. Subjects arrived at the work setting and were randomly assigned to one of the four experimental conditions. The task was the same as was used in the enriched condition in the primary study (subjects chose stocks, looked up closing prices, calculated percent changes, and graphed changes).

Subjects were shown how to do the task and then worked for 45 minutes. During the work session, the supervisor made either 2 or 8 verbal cues about the task. All the cues offered to a particular subject were consistently positive or consistently negative. At the conclusion of the work session, subjects completed the same measures of task perceptions and affective reactions as were used in the primary study, except that satisfaction items pertaining to the co-worker were deleted.

Follow-up study 2 was a middle-ground variation of the primary study and follow-up study 1. In this study, a new confederate played the role of a co-worker. Forty different subjects participated. After showing the two workers (subject and confederate) how to do the task (the same enriched task), the supervisor sat behind his desk and did "paperwork." During the work session, the supervisor and the co-worker each provided either one cue each (a total of two) or four cues each (a total of eight). For each sub-

ject, all cues were either consistently positive or consistently negative. After 45 minutes, subjects completed the same measures of task perceptions and affective reactions as were used in the primary study.

Results: Follow-Up Studies

Results for both follow-up studies are summarized in Table 2. In study 1 (positive or negative cues, more or less frequent, all from the supervi-

Insert Table 2 about here

sor), there was a significant main effect for cue type on the task dimension dealing with others ($F(1,36) = 6.72, p < .05$) and a significant interaction effect between cue type and cue frequency on friendship opportunities ($F(1,36) = 4.80, p < .05$). The main effect of cue type on intrinsic satisfaction and the interaction effect between cue type and cue frequency on task variety each approached conventional levels of significance ($p = .051$ and $.091$, respectively).

For study 2 (positive or negative cues, more or less frequent, consistently provided in equal proportions from the supervisor and the co-worker), there were significant main effects for cue type on both intrinsic satisfaction ($F(1,36) = 4.21, p < .05$) and overall satisfaction ($F(1,36) = 4.21, p < .05$). There were also significant interaction effects between cue type and cue frequency on feedback ($F(1,36) = 10.96, p < .01$), dealing with others ($F(1,36) = 8.22, p < .01$), and friendship opportunities ($F(1,36) = 8.13, p < .01$). The main effect of cue type on job satisfaction and the interaction effects on satisfaction with supervision and satisfaction with co-workers each approached conventional levels of significance ($p = .067$,

.078, and .097, respectively).

Discussion

This study was conducted to test the effects of task design, social cues from a co-worker, and social cues from a leader on perceptions of and affective reactions to an experimental task. The study was designed to offset recent criticisms of SIP-related research (Blau & Katerberg, 1982; Thomas & Griffin, 1983) and to be conducted in a more realistic fashion. As described above, few significant relationships were detected.

Two follow-up studies were conducted next. The first examined the effects of frequency of both positive and negative cues on task perceptions and reactions. The second follow-up study extended the first by providing frequent and less frequent positive and negative cues from two sources, a supervisor and a co-worker. Again, few significant relationships were found.

Before discussing the implications of these findings, it may first be instructive to consider the general role of null findings in organizational research. Greenwald (1975) notes that the tendency to reject null findings may be very detrimental to research progress and that there is no inherent reason to believe a non-significant finding is invalid. In fact, he reiterates Platt's (1964) assertion that scientific advancement is often most powerfully achieved by rejecting theories. He further highlights the worst consequence of prejudice against the null hypothesis: the accumulation of valid results having very limited generality. On balance, Greenwald argues that research should be judged not on the basis of the results obtained, but on the basis of adequacy of procedures and the importance of the findings. This position has recently been echoed by Campbell (1982).

Hence, if credence is to be placed in the null findings obtained in these studies, it is necessary that the studies be subjected to the closest scrutiny. At least six factors serve to support the validity of the design and results of the primary study. First, the task manipulation was one previously developed, pre-tested, and used in an earlier SIP study. Second, the confederates underwent several hours of training so that they could execute their roles and deliver their cues in a smooth and natural fashion. Further, confederates practiced their cues during the pre-test involving ten subjects. Third, the frequency and magnitude of the cues were tailored to be as realistic as possible and to avoid saturation and commensurate demand characteristics. Fourth, the manipulation checks strongly indicated that subjects did accurately perceive attitudinal differences on the part of the co-worker and the leader. Fifth, most of the dependent variables were measured with standard, commonly used instruments with acceptable levels of validity and reliability. Finally, follow-up conversations with several of the subjects failed to reveal any noticeable suspicions or questions as to the veracity of the confederates. Hence, while no study is without flaws, the primary study was designed and executed with a high level of concern for validity and scientific precision.

It was noted earlier that if people are placed in atypical situations, they may respond in an atypical fashion. Since there is reasonable evidence that the previous laboratory studies have, in fact, been atypical of the normal workplace, it follows that the results obtained in those studies may also be atypical. To the extent that the work and social environment created in this study is more typical, it logically follows that the null results obtained may also be somewhat more typical of real-world employees.

In order to make more direct comparisons between the findings reported here and those in previous laboratory studies, all known SIP-related laboratory studies were summarized according to (1) whether cues were provided in a direct verbal fashion (i.e., by a confederate in the work setting) or in an indirect and/or nonverbal fashion, and (2) the effects of those cues on task perceptions and affective reactions. These categorizations are presented in Table 3. Analysis of the findings according to these dimensions

 Insert Table 3 about here

yields some interesting patterns.

As shown in the upper-left quadrant of Table 3, there have been 31 tests of direct cue main effects on specific task attributes perceptions. Of these, only 8 have been significant. A total of six significant interactions have also been detected.

Of 21 tests of the effects of direct verbal cues on affective reactions, 10 have been found to be significant (the upper-right quadrant of Table 3). Moreover, three significant interactions have also been observed.

In studies testing the effects of indirect and/or nonverbal cues on task perceptions (the lower-left quadrant of Table 3), 8 of 13 potential relationships have been reported as being significant. Interestingly, only non-significant interactions have been reported. Finally, only three tests of indirect and/or nonverbal cues on affective reactions have been reported. As shown in the lower-right portion of Table 3, all three main effects were significant.

In summary, then, it appears that the primary effects of social cues in laboratory settings have been on affective reactions rather than on task

perceptions. For affective reactions, 13 of 24 main effects have been significant. For task perceptions, however, only 16 of 44 potential main effects have been found to be significant.

What does this mean for the SIP approach to task design? Primarily, it suggests that current enthusiasm for the approach should be curbed and more attention devoted to theoretic issues and matters pertaining to appropriate research methods. For example, as summarized at the beginning of this paper, Pfeffer (1981) has noted that one assertion of the SIP model is that an individual's social environment provides cues as to what dimensions should be used to characterize the work environment. Yet, to date, only one study (O'Conner & Barnett, 1980) has used anything other than standard task attributes instruments to assess task perceptions. We are asking subjects to tell us how much variety and autonomy they have in their jobs when variety and autonomy may have no meaning or salience for them in their particular work setting.

Second, the SIP model suggests that the social environment provides information as to how the relevant dimensions should be weighted. None of the studies cited here, however, have provided any discernable cues about the relative importance of task dimensions.

Hence, only two of the four primary elements of the SIP framework have been adequately addressed in laboratory research to date. There is a clear need, then, to focus more on theoretic issues of reality construction in social settings. Blau and Katerberg (1982) make a number of useful points from the attitude change literature. The accumulated information model of Saltiel and Woelfel (1975), in particular, is proposed as a potentially useful framework for furthering our understanding of how social cues and objec-

tive information are accumulated and assimilated.

Of equal significance for future research is the question of research methodology. For social cues to impact task perceptions in a laboratory setting, it appears that several conditions must be met. The major conditions seem to be that the cues must be unanimous, salient, and provided with a very high frequency. Even then, their primary effects seem to be more on affective reactions than on task perceptions. Since these conditions are not reflective of most real job settings, it follows that the artificial use of communication in the laboratory may not be a feasible route for investigating the SIP model. That is, if researchers have to design atypical settings in order to get significant results, they would perhaps be better served by investing their time and energy into more realistic simulation techniques (e.g., Umstot, Bell, & Mitchell, 1976) and field research. By exploring the complex and dynamic flows of social information in real job settings, we can perhaps begin to really understand how task perceptions and responses are formulated.

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Table 1

ANOVA Results for Primary Study

Dependent Variable	F	p
Variety		
Task Conditions (T)	1.37	.25
Supervisory Cues (S)	.64	.43
Co-Worker Cues (C)	.01	.91
T X S	3.35	.07
Autonomy		
Task Conditions (T)	.44	.51
Supervisory Cues (S)	.11	.75
Co-Worker Cues (C)	2.43	.12
T X C	3.35	.07
Identity		
Task Conditions (T)	.01	.91
Supervisory Cues (S)	.55	.46
Co-Worker Cues (C)	.24	.62
Feedback		
Task Conditions (T)	.04	.85
Supervisory Cues (S)	1.53	.22
Co-Worker Cues (C)	.55	.46
Dealing with Others		
Task Conditions (T)	.87	.35
Supervisory Cues (S)	.87	.35
Co-Worker Cues (C)	.03	.87
Friendship Opportunities		
Task Conditions (T)	1.09	.30
Supervisory Cues (S)	1.52	.22
Co-Worker Cues (C)	.33	.57
Job Satisfaction		
Task Conditions (T)	6.58	.012
Supervisory Cues (S)	3.58	.06
Co-Worker Cues (C)	1.54	.22
T X C	4.47	.04
Satisfaction with Supervisor		
Task Conditions (T)	.02	.90
Supervisory Cues (S)	.09	.76
Co-Worker Cues (C)	.15	.70
Satisfaction with Co-workers		
Task Conditions (T)	.17	.68
Supervisory Cues (S)	2.73	.10
Co-Worker Cues (C)	6.04	.016

Table 1 continued

Intrinsic Satisfaction		
Task Conditions (T)	.09	.76
Supervisory Cues (S)	7.22	.009
Co-Worker Cues (C)	.49	.49
T X C	4.49	.04
Extrinsic Satisfaction		
Task Conditions (T)	.05	.83
Supervisory Cues (S)	3.80	.055
Co-Worker Cues (C)	4.29	.042
T X C	2.97	.089
Overall Satisfaction		
Task Conditions (T)	.01	.92
Supervisory Cues (S)	6.91	.01
Co-Worker Cues (C)	1.05	.31
T X C	3.94	.051

Note: Only interaction terms approaching significance are reported.

Table 2

ANOVA Results for Follow-Up Studies

Dependent Variable	Follow-Up Study 1		Follow-Up Study 2	
	F	p	F	p
Variety				
Cue Type (T)	1.02	.32	1.08	.31
Cue Frequency (F)	.02	.89	1.08	.31
T X F	3.01	.091		
Autonomy				
Cue Type (T)	.11	.74	1.65	.21
Cue Frequency (F)	.11	.74	1.09	.30
Identity				
Cue Type (T)	2.29	.14	.93	.34
Cue Frequency (F)	.91	.34	2.18	.15
Feedback				
Cue Type (T)	.01	.94	1.28	.26
Cue Frequency (F)	2.18	.15	1.28	.26
T X F			10.96	.002
Dealing with Others				
Cue Type (T)	6.72	.014	.54	.47
Cue Frequency (F)	2.86	.100	.36	.55
T X F			8.22	.007
Friendship Opportunity				
Cue Type (T)	1.20	.28	.00	1.00
Cue Frequency (F)	1.20	.28	.00	1.00
T X F	4.80	.035	8.13	.007
Job Satisfaction				
Cue Type (T)	1.59	.21	3.57	.067
Cue Frequency (F)	.18	.68	.99	.32
Satisfaction with Supervisor				
Cue Type (T)	.14	.71	1.38	.25
Cue Frequency (F)	.49	.49	.73	.40
T X F			3.29	.078
Satisfaction with Co-worker				
Cue Type (T)	--	--	.44	.51
Cue Frequency (F)	--	--	.00	1.00
T X F			2.90	.097

Table 2 continued

Intrinsic Satisfaction				
Cue Type (T)	4.07	.051	5.39	.026
Cue Frequency (F)	.07	.79	.92	.34
Extrinsic Satisfaction				
Cue Type (T)	.65	.43	.48	.50
Cue Frequency (F)	.15	.71	.01	.91
Overall Satisfaction				
Cue Type (T)	1.67	.21	4.21	.048
Cue Frequency (F)	.15	.71	.54	.47

Note: Only interaction terms approaching significance are reported.

Table 3
Summary of Informational Cue Effects on
Task Perceptions and Affective Reactions
In Selected Laboratory Experiments^a

STUDIES	TASK PERCEPTIONS ^b										AFFECTIVE REACTIONS ^c							
	Var	Aut	Fdb	Iden	Sig	DWO	FO	Comp	Amb		JobSat	SupSat	CoSat	InSat	ExSat	OverSat	PaySat	GrSat
<u>Studies Providing Direct Verbal Cues</u>																		
1. Primary Study	NS	NS	NS	NS	--	NS	NS	--	--		X	NS	.05	.05 ^x	.05	.05 ^x	--	--
2. Follow-Up Study 1	NS	NS	NS	NS	--	.05	.05 ^x	--	--		NS	NS	--	.05	NS	NS	--	--
3. Follow-Up Study 2	NS	NS	X	NS	--	X	X	--	--		NS	NS	NS	.05	NS	NS	--	--
4. Griffin (1983)	.01	NS	.001	.05	--	.001	.001	--	--		--	--	--	.01	.05	.001	--	--
5. White & Mitchell (1979)	.01	NS	NS ^x	NS	NS	--	--	NS	NS ^x		.05	--	--	--	--	--	--	--
<u>Studies Providing Indirect and/or Nonverbal Cues</u>																		
1. O'Connor & Barrett (1980)	--	--	--	--	--	--	--	.001	.001	--	--	--	--	--	--	--	--	--
2. O'Reilly & Caldwell (1979)-JCI-	.01	.01	NS	NS	--	--	--	--	--		--	--	--	--	--	.01	.01	.01
JDS-	.05	.05	NS	NS	.05	--	--	NS	--		--	--	--	--	--	--	--	--
3. Weiss & Shaw (1979)	--	--	--	--	--	--	--	.001	--		--	--	--	--	--	--	--	--

^aNS = nonsignificant finding, x = significant interaction, p values = significant finding, NS^x = nonsignificant main effect but significant interaction, p^x = significant main effect and interaction.

^bVar = Variety, Aut = Autonomy, Fdb = Feedback, Iden = Identity, Sig = Significance, DWO = Dealing with Others, FO = Friendship Opportunities, Comp = Composite Index of Task Scope, Amb = Job Ambiguity.

^cJob Sat = Job Satisfaction, Sup Sat = Satisfaction with Supervisor, Co Sat = Satisfaction with Co-Worker, In Sat = Intrinsic Satisfaction, Ex Sat = Extrinsic Satisfaction, Over Sat = Overall Satisfaction, Pay Sat = Satisfaction with Pay, Gr Sat = Satisfaction with Growth.

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