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Differential Effects of Praise Types

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Differential Effects of Praise Types

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THESIS ACCEPTANCE

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Abstract

Sixty-two male Caucasian undergraduate Psychology students were randomly divided into four treatment groups wherein they all performed an identical task under the direction of a "supervisor." The supervisor dispensed either non-evaluative verbal feedback, Structured Praise, Considerate Praise, or a combination of Structured and Considerate Praise to subjects in treatment conditions one through four respectively. Considerate praise is characterized as aperiodic, unlinked (to the giving of a formal performance appraisal), informal (not required by the "system"), spontaneous, generally unwritten, "from the heart" type praise while structured praise is essentially just the opposite.

The dependent variables of task quantity, task quality, task error rate, supervisor initiating structure scores and supervisor consideration scores were analyzed using a one-way analysis of variance with harmonic mean solution.

The major research hypotheses postulated that subjects in condition four, the combined praise system, would perform significantly better on the dependent variables of quantity, quality, and error rate, and rate their supervisor significantly higher on initiating structure and consideration. Analysis led to the rejection of all of these hypotheses.

It appeared, however, that the two types of praise differentially effect subjects' perceptions and attitudes regarding their supervisor. Although there were no statistically significant behavior differences found between conditions, those subjects who received Considerate Praise rated their supervisor significantly more considerate than did subjects in condition one (non-evaluative verbal feedback). The major finding of

the present research seems to be that while supervisors who dispensed either type of praise or their combination were seen as maintaining definite standards, only the supervisor who dispensed Considerate Praise was also seen as doing little things to make it pleasant to be a member of the work group.

The practical ramifications of the use of Considerate Praise are discussed. Suggestions for future research are recommended.

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I would like to take this opportunity to thank my wife Dorothy for her patience, understanding, and financial support while "putting hubby through." I would like also to thank my son Mike for being so understanding during days when he wanted to do something with old dad but couldn't because old dad was busy attending class, doing research, or spending time behind the typewriter.

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I would like to particularly thank Robert Ottemann for agreeing, on such short notice, to serve on my committee.

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Shrouded in the mists of the past there was a wise person who once said, "You can catch more flies with honey than you can with vinegar." Who this person was or what became of him one can only guess. Yet, this simple advice is still useful today. The world is full of punishment and reinforcement contingencies, some naturally occurring, some contrived. The Law of Effect (Thorndike, 1911) tells us that generally man attempts to maximize his reinforcement and minimize his punishments over time. Similarly, Premack (1965) suggests that there is a hierarchy of reinforcement operating with individuals which causes them to seek to engage in certain pleasurable responses to the exclusion of other less desirable reinforcers and punishers. Since there seems to be several ways of getting people to behave in desired ways (positive or negative, intrinsic or extrinsic, reinforce or punish) one wonders why some modern organizations have evolved into control systems which utilize a combination of punishment (or its threatened use), and positive or negative extrinsic reinforcers to keep the workforce in line. Why don't they use various types of positive intrinsic reinforcement more methodically?

Lawler (1976) states that organizations could profit from research into why control systems evolve the way they do, and adds that little research has been done on why organizations end up with the control systems they have. Since the dawn of the true organization it evidently has been decided by some of those in power that avoidance of punishment is more motivating than the acquisition of reinforcers; that to motivate people to produce work it is more effective to place them in fear for their security (both physical and psychological) than it is to enhance their security or self-esteem. In Maslow's (1954) terms, the use of punishment (ridicule, suspension, termination) places a person's physiological and safety needs

in jeopardy. Punishment can motivate people to adhere to desired objectives (Azrin & Holz, 1966; Johnston, 1973).

Present Use of Punishment

Punishment, or its threatened use, is one of the primary means of manipulating individuals within organizations and within society as a whole (Lazer, 1975; Luthans & Kreitner, 1973; Luthans & Otteman, 1973; Maier, 1965; McGregor, 1960).

Side Effects of Punishment

The vast preponderance of pertinent research indicates that punishment of individuals tends to give rise to many side effects which could prove dysfunctional to the individual as well as to the organization within which he labors (Church, 1963; Johnston, 1972; Luthans & Otteman, 1973; Schneier, 1974).

Argyris (1964) argues that some organizations which utilize punitive control systems tend to foster disruptive behavior on the part of employees. The organization begins the sequence by treating "normal" adults as if they were children by threatening to punish them if they violate one of a long list of don'ts. When they do something not allowed, they are punished (much as a child is punished by a parent). When they are punished like children, they tend to react like children by rebelling, etc. This, in turn, leads to their being punished again. This is properly called a "viscious circle" and it can, according to Argyris (1964), lead to considerable organizational disruption.

The undesirable side effects precipitated by the use of punishment include: Social disruption-escape and avoidance (Azrin & Holz, 1966; Lazer, 1975; Moxley, 1973), aggression and counterattack (Azrin & Holz, 1966; Delgado, 1963; Lazer, 1975; Moxley, 1973), negative modeling

(Macoby & Levin, 1957; Moxley, 1973), rigidity-fixation (Maier, 1965; Moxley, 1973), fear generalization (Maier, 1965; Moxley, 1973), employee psychological and emotional problems (Locke, 1976; Luthans & Kreitner, 1973; Maier, 1965; Moxley, 1973), organizational disruption (Azrin & Holz, 1966; Lazer, 1975; Margerison, 1974; Moxley, 1973), diminished effectiveness of the punishing agent (Luthans & Kreitner, 1973; Maier, 1965), and association of the wrong act with the punishment (Maier, 1965).

Why then, if control systems utilizing punishment are so undesirable, are so many in use in modern organizations? Maier (1965) furnishes some of the possible answers. Organizational managers punish, not to train employees, but out of anger. To use positive methods when one is mad and frustrated is contrary to our "natural tendencies" (p. 425). Persons are inclined to punish when they themselves are frustrated. Also, the negative approach is simpler than the positive. A superior doesn't have to know how to improve a job in order to find fault with the way it is being done. On the other hand, the positive approach assumes that the superior knows not only what is wanted, but how it is to be accomplished.

Logic would dictate yet another reason for the popularity of punishment. It is an economical system to administer since it is an exception type system. For example, it is more economical (in terms of dollars, time, manpower, etc.) to fine a person for running a red light (the exceptional behavior) than it is to positively reinforce him for stopping when he should (the normal behavior). All-in-all, punishment is the most administratively simple control system to utilize even though, as detailed earlier, there is ample reason to question whether or not it is the best system.

Job Satisfaction--Happiness

According to Locke (1976) one cannot have job satisfaction without happiness. To him, job satisfaction is, "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (p. 1300). Further, he called happiness "the goal of life" (p. 1328). It seems logical to conclude, given the research previously cited, that punishment of individuals may lead to job dissatisfaction and unhappiness. Herzberg, Mausner, and Snyderman (1959) postulate that it is important for the goals of an organization to be integrated with the personal goals of organizational members and vice versa. If Locke (1976) is correct in saying that happiness is the goal of life, than any organization which utilizes a punishment oriented control system tends to thwart this ultimate goal--the epitome of goal non-integration. Herzberg, et al. (1959) would predict that this non-integration would lead to a less than effective organizational performance.

Effects of Job Dissatisfaction--Unhappiness

What effect does job dissatisfaction-unhappiness have on an individual? Kornhauser (1965), Iris and Barrett (1972), and Weitz (1952) have found significant correlations between employees' attitudes toward their jobs and their attitudes toward life in general. Herzberg et al. (1959) found that satisfying job experiences (achievement, recognition) generally increased the individual's self-confidence. Locke (1976) posits that an opposite and equal effect of dissatisfying experiences should also be found. Burke (1969, 1970) found significant correlations between job satisfaction and subjectively reported measures such as fatigue, shortness of breath, headaches, sweating, and ill health. Sales (1969) reports a significant negative correlation between a subject's enjoyment of a task and changes in

their level of serum cholesterol, implying a relationship between dissatisfaction and heart disease. In a convincing longitudinal study, Palmore (1969) found that the single best overall predictor of longevity (r = .26; N = 268) was work satisfaction. The second best predictor (r = .25) was the interviewers rating of the subjects' overall happiness. In an extensive review of the medicopsychological literature, Jenkins (1971) found many studies which reported relationships between coronary disease and job complaints such as feeling ill-at-ease, and interpersonal conflict. Kornhauser (1965) found consistent relationships between satisfaction and a mental health index consisting of measures of anxiety and tension, self-esteem, hostility, sociability, life satisfaction, and personal morale (versus despair and anomie). Further, there is a proven consistent relationship between job dissatisfaction, absenteeism, and turnover (Atchison & Leffert, 1972; Julin, 1968; Kraut, 1970; Taylor & Weiss, 1972). Last, Fleishman and Harris (1962) found that a high grievance rate was associated with departments where supervisors were rated low in consideration and high in initiating structure, a combination hypothesized to lead to employee dissatisfaction with the supervisor.

Necessity for Change

Research by Atkinson and Feather (1966) found that some individuals are motivated primarily by positives, for example, the need for achievement, and there are others who are more motivated primarily by negatives, for example, the desire to avoid failure, criticism, or other punishments. In light of this finding, it would seem inadvisable to totally eliminate the threat of punishment from an organization. However, because of the vast preponderance of the evidence cited above, it would seem advisable to attempt to control and direct people by other than predominantly aversive

means. The use of positive reinforcement by supervisors as a motivating factor would seem to be a more desirable manipulative device, if properly applied, than would punishment.

Positive Reinforcement--Praise

In the truest sense, positive reinforcers are those things that individuals perceive to be rewarding to possess. Their beauty is truly in the eye of the beholder. What is considered rewarding to one person may not be considered rewarding to another. Because of this, it comes as no surprise that many things can function as positive reinforcers. The research herein will center on the positive intrinsic reinforcer praise.

Why praise and not some other positive reinforcer? The reasons are simple. Locke (1973, 1976) states that virtually all employees value being praised for their work, being given credit when due. In his research, praise or recognition was one of the most frequently mentioned events which led to job satisfaction. Conversely, being criticized or not getting credit for work accomplishments was one of the most frequently mentioned reasons for job dissatisfaction.

Maier (1965) also extolls the virtues of praise. He informs us that praise is a form of ego satisfaction, and that adults as well as children can readily be motivated by its use. He concludes, after examining many studies dealing with praise (e.g., Moore, 1939) and its effects, that praise for past efforts is distinctly superior to any form of disapproval of work done. With regard to its impact he reports the following findings: (a) Praise enhances self-confidence and self-esteem.; (b) Praise fosters a supportive climate.; (c) The giving of praise by the superior indicates acceptance and liking for the praisee.; (d) The dispensing of praise makes

the activity leading up to it more attractive.; (e) Praise is a satisfier, or intrinsic reinforcer.

In research recently completed, Deci (1976) has added even more credibility to the idea that praise may be a very good source of positive reinforcement. He discovered that praise increased the intrinsic motivation of recipients to do a task whereas things such as money, additional benefits, etc. (extrinsic factors) were found to reduce the recipients' intrinsic motivation to do the task.

Maslow (1954, 1970) found that mans self-esteem needs were met by recognition and approval of others. Both of these involve the idea of praise. Recognition, or praise, was mentioned by Herzberg et al. (1959) as a rich source of job satisfaction (a motivator).

Finally, from a purely practical point of view, one can see logically that praise would be relatively cheap to administer, not requiring any elaborate system, simple to apply in any situation/location, and would not consume much supervisory time to administer.

Limitations of Praise

Lest I become too intemperate in my praise of praise, I must hasten to add that the use of praise does have its limitations.

Farson (1963) cautions that praise may be a questionable device to motivate and stimulate people. He suggests, with some trepidation, (since the use of praise is a time honored human-relations technique) that praise may be experienced as threatening by its recipient; that it may give rise to defensiveness in some people. It does so because it is, by nature, judgmental and evaluative. Both Farson (1963) and Maier (1965) explain that such an appraisal is the passing of judgment by one person over another, the praiser being the implied superior. If the recipient doesn't

accept the relationship (being subordinate), resentment is likely to occur. However, the most threatening aspect of praise as Farson (1963) sees it is the obligation it places on the recipient to always behave in a praiseworthy manner. This he sees as "the most difficult problem in living " (p. 63), that is, living up to one's talents and abilities.

Bordonaro (1976) likewise warns that people may sometimes react negatively to praise. Generally this occurs when there is a lack of consistency (congruence) between the level of feedback a person expects and that which he actually receives. Outcomes which fall at an expected level may be met with neutrality while outcomes which fall above the expected level may be met with hostility or disbelief. Maier (1965) goes somewhat further by stating that faint praise may be regarded as criticism while elaborate praise may be regarded as insincere or manipulative.

Deutsch and Solomon (1959) add that if the praiser is in a position to benefit from ingratiating himself, then he generally is not liked very much. It appears that if the praisee perceives that there are strings attached to the praise, it is not likely to be an effective motivational tool.

Another caution was added by Aronson (1976). He suggests that praise is not a universal reward. It is not "transsituational" (p. 220). Whether or not praise functions as a reward depends upon minor situational variations some of which can be extremely subtle.

Although these comments are well taken, the preponderance of pertinent research indicates that praise is indeed a desirable positive reinforcer which may be used to effectively motivate individuals (Catano, 1975; Fisk, 1975; Gullett & Reisen, 1975; Herzberg et al., 1959; Hilgert, 1974; Kanugo & Norman, 1974; Locke, 1973, 1976; McGregor, 1960; Velghe & Cockrell, 1975;

Ward, 1974).

Effective Praise

Since some of the limitations of praise are now known, attention may be directed toward those things which make praise effective thus completing the picture.

Kim and Hamner (1976) define praise as a specific type of feedback cue that is favorably evaluative in nature, is generally external to the receiver (being delivered by a significant other), and is based on knowledge of results concerning the employee's present performance as it relates to a goal set, other employees' performances, or the employee's previous level of performance. This definition alone gives one some idea of just what praise must consist of to be effective.

Research on praise also furnishes us with the following rules for its effective administration: (a) It should be perceived by the recipient as contingent upon his performance (Bailey, 1974; Deci, 1972; Kim & Hamner, 1976; Perry & Garrow, 1975; Richman, 1975).; (b) It should be dispensed with as short a latency as possible (Olson, 1974).; (c) It should be given directly to the recipient (Parnes, 1974).; (d) It should be dispensed by a significant other as opposed to a peer of the recipient (Catano, 1975; Deci, 1972; Fishman, 1974).; (e) It must be perceived as sincere by the recipient (Adler & Iverson, 1975; Bordonaro, 1976; Deutsch & Solomon, 1959; Farson, 1963; Kanugo & Norman, 1974).

Further, in regard to effectiveness, Maier (1965) comments that a person will accept praise from an accepted supervisor if the praisee feels he can learn from him and if the motive behind such praise is the desire to teach, not manipulate.

Statement of the Problem

As all of the above research indicates, the mechanical aspects of praise seem to have been researched fairly well over the years. There is, however, room for further exploration of the concept of praise. Several researchers have alluded to an as yet unresearched area of praise--the praise system consisting of two praise types.

For instance, Gullett and Reisen (1975) have suggested that praise may be more effective as a motivator when not linked only to the giving of a formal periodic performance appraisal. In other words, a praise system consisting of praise linked to the giving of a formal periodic performance appraisal plus praise given when not linked to the giving of a formal performance appraisal is the most effective combination to motivate employees.

Since praise is a type of feedback cue (Kim & Hamner, 1976) what Slusher (1975) discusses is also pertinent. He indicates that feedback (praise, knowledge of results, recognition) should be viewed as a system. He posits that such a system should include not only formal performance appraisals at fixed intervals, but also aperiodic appraisals in order to be truly effective at motivating employees on their jobs.

Since both of these researchers have only suggested the systems approach and failed to direct any research toward evaluating their feelings, such research is in order. Specifically, the present research is aimed at testing the general hypothesis that the combined system of praise types is superior to either type of praise when dispensed separately. A thorough review of the literature has failed to uncover any research bearing directly on the relative effectiveness of praise types or praise systems.

At this point a further characterization and clarification of the two praise types is in order.

One type of praise was characterized by the above researchers as unlinked (to the giving of a formal performance review) and aperiodic. Completing the characterization on a logical basis, this type of praise could also be called informal (not required by "the system"), spontaneous, generally unwritten, "from the heart" type praise. This is the type of praise that may be delivered by a considerate supervisor on an "as appropriate" basis. It may be generally unexpected by the recipient due to its aperiodic nature. It generally has a very short latency, sometimes immediate, and is perceived by the recipient as coming from the supervisor as a person and not an agent of "the system." For simplicity this type of praise will be labeled Considerate Praise. It is called this because it is the type of praise that a considerate human-relations oriented supervisor would utilize on the job.

The second type of praise was characterized by the above researchers as linked (to the giving of a formal performance appraisal), and periodic in nature. It could be further described as formal (required by "the system"), generally written down (making it fairly permanent), and non-spontaneous (in the sense that it is usually thought out ahead of time). This type of praise is generally delivered as a "requirement of the system" (part of the formal performance appraisal). It is not usually directly and immediately linked to the employee's performance. Since this type of praise arises during a ritual (performance appraisal) which is built into the structure of the personnel system it shall be labeled Structured Praise.

With the two types clarified, attention may now be turned to an explanation of the four praise conditions which will be utilized herein. First, there must be a condition wherein no praise of either type is dispensed. This shall be labeled Praise Condition A (PCA). The "A" indicates

the absence of both types of praise. Second, there must be a condition wherein only Structured Praise is dispensed. This shall be labeled Praise Condition S (PCS). The "S" denotes that only Structured Praise is dispensed in this condition. Third, there must be a condition wherein only Considerate Praise is dispensed. This shall be labeled Praise Condition C (PCC). The "C" denotes that only Considerate Praise is dispensed in this condition. Finally, there must be a condition wherein both types of praise are dispensed together--a praise system. This condition shall be labeled Praise Condition SC (PCSC). The "SC" is to denote that both types of praise are dispensed in this condition--a system.

Up to now one could only guess about the differential effects of such praise conditions on individuals. The present research is meant to answer only very basic questions regarding the effects of such conditions on people. The fundamental question which must be answered is, "Will individuals perceive and react differently when exposed to the different praise conditions?" Is praise merely praise, or does the type of praise have something to do with their perceptions? Is the system of praise seen differently than when only one type of praise is used? It makes sense to assume that individuals laboring under one type of praise condition will perceive their work climate in a different light than would individuals laboring in a different praise condition. It is this assumption which must be tested.

In order to answer the questions posed above, and to confirm or disaffirm the suggested hypotheses of Gullett and Reisen (1975) and Slusher (1975), it is necessary to formulate research hypotheses. They are as follows: (a) Subjects in PCSC will produce significantly more product than will subjects in the other three conditions.; (b) Subjects in PCSC will

produce product of significantly better quality with a lower error rate than will subjects in the other three conditions.; (c) Subjects in PCSC will rate their supervisor as significantly higher in consideration and initiating structure than will subjects in the other three conditions.

Method

Subjects

Sixty-two male Caucasians between the ages of 18 and 40 who were Introductory Psychology students from the University of Nebraska--Omaha served as research subjects. They were recruited by the researcher utilizing the Psychology subject pool. Each subject was telephoned and asked to participate. During the phone call a brief description of the research was given to them. Their participation in the research was strictly voluntary. All Psychology Department rules pertaining to the handling of human subjects were adhered to. As an inducement to participate, the subjects were given one hour of credit toward their Psychology course grade.

Subjects were randomly assigned to one of the four treatment conditions. They were recruited on the basis of their availability at a given point in time when the condition was to be run. White males between the ages of 18 and 40 were utilized in an attempt to eliminate, as much as possible, unwanted variance due to sex and race differences.

A short (5 minute) debriefing was held for all subjects immediately following the completion of the treatment condition. Subjects were allowed to ask any questions they desired during the debriefing.

Seventeen subjects were scheduled for each of the four conditions. However, several subjects failed to show up. This resulted in an unequal N in the conditions. No attempt was made to achieve an equal N situation by eliminating subjects since a harmonic mean solution could be utilized.

Materials

Task. All subjects in all conditions performed an identical dot counting task. The task materials consisted of two separate sheets of lines of dots with differing numbers of dots per line (see Appendix A for sheets utilized). Subjects were allowed 10 minutes to count each sheet. The independent variable was inserted into the condition between the two 10 minute counting periods. Limited test-retest reliability checks yielded an r = +.87 (N = 14). All subjects were furnished with pencils to assist them in scoring their sheets. They were to count each line and place their count of the number of dots in the line to the right of the line in the space provided.

Formal appraisal form. In Praise conditions S and SC it was necessary to rate the performance of the subjects utilizing a "Formal Appraisal Form" (see Appendix B for form). Such a form was necessary to assist in creating a "gestalt" of a formal appraisal system (Structured Praise) in the minds of the subjects.

Leader behavior description questionnaire--form XII. At the conclusion of the counting of the pages of dots, each subject was allowed to rate his superior (the experimenter) using this instrument (see Appendix C for questionnaire).

The Leader Behavior Description Questionnaire--Form XII was used to measure the supervisor's level of consideration and initiating structure as perceived by the subjects. As a general rule, effective supervisors are those who are rated by their subordinates as high in both initiating structure and consideration (Stodgill, 1974).

The LBDQ--Form XII was chosen over earlier LBDQ and SBDQ instruments for several reasons. First of all, it seems preferable because its factor

structure is less complex than earlier versions (Schriesheim & Stodgill, 1975). Second, it is free of production oriented items (Stodgill, 1969). This feature adds to the instruments face validity in the present experimental context. Third, it has been subjected to rigorous experimental validation with successful results (Schriesheim & Stodgill, 1975; Stodgill, 1969). Last, and very welcome in the present experimental situation, it is over 50% shorter than earlier versions, having a total of only twenty items. The first 10 items measure initiating structure while the second 10 measure consideration (Schriesheim & Stodgill, 1975; Stodgill, 1969). The LBDQ--Form XII and the other forms of the LBDQ have been successfully utilized in hundreds of studies investigating the phenomenon of leadership (Schriesheim & Stodgill, 1975; Stodgill, 1974).

Standard rate sheet. The information contained on this sheet was used by the supervisor in all conditions, except PCA, to show subjects how their performance on the task compared to others who counted the same sheets while being allowed the same amount of time. The sheet was developed using information about counting rates achieved during the test-retest reliability studies of the task (see Appendix D for actual sheet). These quantities were, however, reduced by 20% so that in all cases the performance of the subjects in the four praise conditions would exceed the figures. All the subjects' performances on the task thus became praiseworthy. It was then possible for the supervisor to praise each subject for doing better than the standard.

Timing device. The various steps in the experiment had to be carefully timed to assure uniformity of administration in all praise conditions. For this reason, a stop watch was used.

Procedure

Experimental praise. The praise utilized in praise conditions S, C, and SC was designed to be as effective as possible based on the research detailed earlier. To elaborate, it consisted of favorable verbal (Considerate) or verbal plus written (Structured) evaluation of a subject's task performance as compared to the Standard Rate Sheet, a standard of comparison. The praise was dispensed contingent on the subject doing better than the standard (which all subjects did since the actual figures had been reduced by 20% as mentioned on page 15). The praise was delivered to the subject privately by his "supervisor." The dispensing of the praise was almost immediate, being delivered shortly after task performance.

Use of the Standard Rate Sheet was an attempt to make the supervisor's praise seem more credible to the subject receiving it. When showing the sheet to a subject for the first time (it was shown two times to each subject), he was told, "This chart shows how your output compares with the output of many other people who have done this task for the same period of time you have." To prevent each subject from becoming suspicious about the level of praise given to him vis-a-vis other subjects, each subject was placed in a small separate experimental room. This prevented subjects from comparing outputs, and hearing the level of praise given to one another. The only feedback they received regarding their level of performance came from their supervisor.

General experimental sequence. Each of the four praise conditions utilized the same experimental packet and followed the same basic sequence (see Appendix E for packet). Instructions for the participants are given on the first page of the packet. The sequence is as follows:

1. Subjects read and signed "Human Subjects Consent Form" prior to

start of experiment. Experimenter handed out extra credit cards to subjects.

2. Experimenter read experimental instructions to participants as they read silently. Subjects were allowed to practice counting a line of dots. Subjects were asked if they had any questions about the instructions or the task they were to perform.

3. Subjects were placed into small experimental rooms, one subject per room.

4. After subjects were settled in rooms, the experimenter told them to turn to the first page of dots in their packet and begin counting. Experimenter timed the the first counting task allowing the subjects 10 minutes to count as far as they could down the page. During last 2 minutes of the counting, the experimenter entered each subject's room, observed his performance for a few seconds, and then walked out saying nothing.

5. After the 10 minute counting period was over the subjects were told to stop counting. They were also informed that they were entitled to a 5 minute rest break. They were told not to look ahead in the packet during the break and not to leave their respective rooms. The duration of the break was timed.

6. At the end of the five minute break the subjects were again started on the 10 minute counting task of the next page in the packet. As in step 4, during the last 2 minutes of the counting period the experimenter again entered each subject's room, observed their performance, and walked out saying nothing.

7. A repeat of step 5.

8. Subjects were told to turn to the next page in the packet. This page contained the instructions for responding to the Leader Behavior

Description Questionnaire--Form XII. The experimenter read the instructions to the subjects aloud while they read along silently. The experimenter then asked the subjects if there were any questions about how to fill out the questionnaire. The subjects were then allowed to turn to the questionnaire and begin filling it out. They were also informed that there was no time limit on the filling out of the questionnaire. They were instructed to bring the completed questionnaire to the experimenter as soon as they were finished filling it out.

9. When all subjects had returned their experimental packets to the experimenter, a debriefing for all subjects was held.

The experiment took about 40 minutes to complete. Five to seven subjects were run at one time according to the availability of the laboratory rooms. Since there were 15-16 subjects per praise condition, each condition was run three times. The experimenter acted as supervisor in all of the conditions. Praise condition A was run on Monday at 8:00 a.m., 9:00 a.m., and 10:00 a.m. The other three conditions were run on the following three days at the same times.

Independent variables. The above nine steps were common to each of the four conditions. However, during steps 5 and 7 (the 5 minute break periods) each group of subjects was treated in a differential manner. An examination of this differential treatment is now in order.

In PCA, the independent variable injected into steps 5 and 7 consisted of verbal non-evaluative feedback. The experimenter simply entered each subject's room, looked at his level of output on the preceding 10 minute counting task, and made a factual statement such as "25 out of 50 lines." This was the number of lines actually counted (25) out of the total number of possible lines to count (50). Care was taken to say this in a manner

which denoted neither "good-ness" nor "bad-ness." This is essentially a control condition. No praise per se was dispensed. Verbal non-evaluative feedback in this condition was deemed necessary to balance the frequency of verbalization in all conditions. The important distinction between PCA and the other three conditions should not be whether something was said or not said. That is too gross a difference. The distinction should be and is, what was said in each condition.

During the administration of PCS, Structured Praise was dispensed in steps 5 and 7. In step 5, the experimenter entered each subject's room and explained, "It is the policy of this company to periodically appraise the work of all employees. That is what I am going to do with you now. I am going to compare your output with the output of many other people who performed the same task for the same period of time you have." At this point the experimenter would show the subject the "Standard Rate Sheet." The experimenter then said, "This shows you how the other people did." The experimenter would then look at the subject's output and compare it to the Standard Rate Sheet. The experimenter would then say, "Your output is X lines (the number of lines the subject counted). Relative to the performance of these other people I would rate your performance on the task at this point as very good." The experimenter would then produce the "Formal Appraisal Form," circle the appropriate rating on the top scale and leave the form with the subject. The experimenter would then leave that subject's room and enter another's and follow the same sequence.

During step 7 a similar visit was paid to each subject. The experimenter's remarks were modified somewhat since the subjects had already seen the Standard Rate Chart and were aware of what it was. Upon entering each subject's room the experimenter said, "I am here to rate your performance

again." The experimenter then proceeded to show the subject how his performance rated against the Standard Rate Chart much as in step 5. The experimenter then said, "Relative to the performance of these others, at this time I would rate your performance as very good." The experimenter then circled the appropriate rating on the second scale of the Formal Appraisal Form and left it in the room with the subject. Leaving the Formal Appraisal Form in the room with the subject allowed him ample time to read and understand what it was.

During steps 5 and 7 of PCC, Considerate Praise was dispensed. In step 5, the experimenter entered each subject's room and said, "I thought you might like to see how your performance on the task compares to many others who have done the same task for the same period of time that you have." At this point the experimenter would produce the Standard Rate Sheet and show it to the subject. The experimenter would then say, "This shows how the other people did. Your output is X lines out of 50. Relative to the performance of these other people I would rate your performance on the task as very good." The experimenter would then leave the room. No Formal Appraisal Form was filled out and left with the subject.

During step 7, the experimenter entered the subjects room and said, "Again I thought you might like to see how your performance stacks up against the others who did the task." The experimenter then showed the subject the Standard Rate Sheet and said, "This shows how the other people did. Your output is X out of 50 lines. Relative to the performance of these other people I would still rate your performance as very good." Again, no Formal Appraisal Form was filled out and left with the subject.

In PCSC, subjects received both Structured and Considerate praise.

The order of presentation of the praise types was counterbalanced to prevent any confounding of results due to a possible serial position effect. Half of the subjects were given Structured praise during step 5 and Considerate praise during step 7, while the other half received Considerate praise during step 5 and Structured praise during step 7. This condition represents a praise system, the type of system which Gullett and Reisen (1975) and Slusher (1975) hypothesize to be the optimum situation for motivation to occur.

The administration of Considerate praise within this condition was identical to that administered in PCC, step 5.

The administration of Structured Praise within this condition was identical to that administered in PCS, step 5. However, since each subject in this condition was to receive only one "dose" of Structured Praise, the Formal Appraisal Form was altered so that it contained only one rating scale. This was done to prevent any confounding effect which might have occurred due to subjects thinking there should have been two formal ratings of their work when, in fact, they only received one. This might have indicated to them that the experimenter forgot to complete their evaluations or that he didn't really care about them or their performance. This may have led the subjects to make inaccurate and erroneous ratings of their supervisor on the LBDQ--Form XII.

General comments. In all conditions, the experimenter attempted to sound as natural and spontaneous as possible when dispensing the praise or verbal non-evaluative feedback. Care was taken to be as consistent with regard to content of what was said as well as the length of time it took to say things. Although the length of time that the experimenter spent with each subject varied somewhat, in no case was this variance more

than a few seconds.

Dependent variables. There are five dependent variables of interest in the present research:

1. The total number of lines completed by a subject during both counting periods shall be called quantity.

2. There are two quality variables. The first one is the total number of correct lines completed by a subject during both counting periods. This will be called quality. The second is the total number of incorrectly counted lines completed by a subject during both counting periods. This will be called error rate.

3. Using a derivation of the LBDQ--Form XII, the subjects assessed their supervisor's level of consideration and initiating structure. Scores on these two constructs are dependent variables.

Results

The experimental design consisted of one-way analyses of variance, utilizing a harmonic mean due to unequal cell size, for the five dependent variables across all four praise conditions. When a significant ($p < .05$) omnibus F for any of the dependent variables appeared, a Tukey-Honestly Significant Difference (HSD) multiple comparison test was run on the data to ascertain where the significant difference was located.

Analysis of the five dependent variables indicates that only the main effect of consideration was significant ($p = .024$). The following analysis of variance tables (I through V) detail quantity, quality, error rate, initiating structure and consideration respectively (see Appendix G for additional descriptive statistics).

Utilizing a Tukey-HSD test of multiple comparisons to analyze the significant F for consideration, only PCC was found to be significantly

different from PCA ($p < .05$). In other words, the supervisor who dispensed Considerate Praise (PCC) was rated significantly higher in consideration as compared to the supervisor who dispensed verbal non-evaluative feedback (PCA). The consideration score means for PCA and PCC were 40.87 and 32.40 respectively. The higher the score the lower the supervisor's rating. Statistics thus do not bear out the hypothesized superiority of PCSC. All of the research hypotheses must therefore be rejected.

Table I

One-Way Anova

Dependent Variable Quantity

Source	dF	SS	MS	F
Between	3	266.4375	88.8125	0.942*
Within	58	5471.0625	94.3287	
Total	62	5737.5000		

* $p = .428$

Table II

One-Way Anova

Dependent Variable Quality

Source	dF	SS	MS	F
Between	3	703.8125	234.6042	1.639*
Within	58	8300.1875	143.1067	
Total	62	9004.0000		

* $p = .189$

Table III

One-Way Anova

Dependent Variable Error Rate

Source	dF	SS	MS	F
Between	3	231.0781	77.0260	1.589*
Within	58	2812.4062	48.4898	
Total	62	3043.4844		

* $p = .201$

Table IV

One-Way Anova

Dependent Variable Initiating Structure

Source	dF	SS	MS	F
Between	3	122.5039	40.8346	0.658*
Within	58	3600.8828	62.0842	
Total	62	3723.3867		

* $p = .585$

Table V

One-Way Anova

Dependent Variable Consideration

Source	dF	SS	MS	F
Between	3	596.9375	198.9792	3.379*
Within	58	3415.0625	58.8804	
Total	62	4012.0000		

* $p = .024$

Subjects failed to produce significantly more product in PCSC. Subjects in PCSC failed to produce product of significantly better quality

with a significantly lower error rate. Finally, subjects in PCSC failed to rate their supervisor as significantly higher in consideration and initiating structure.

Ancillary Results

Correlations. A Pearson Product--Moment correlation matrix was generated comparing each of the five dependent variables with one another across all four of the praise conditions with the following results:

1. Supervisor initiating structure and consideration were positively correlated (r = .384; p < .001).

2. Initiating structure was positively correlated with quantity (r = -.239; p = .031).

3. Consideration was positively correlated with quality (r = -.232; p = .035).

4. Consideration was positively correlated with error rate (r = .230; p = .036; see Table VI for complete matrix).

Table VI

Pearson Product-Moment Correlation Coefficient Matrix of the Five Dependent Variables across the four Treatment Conditions (N = 62)

Variables	Is	Con	Quan	Qual	E Rate
Is	1.000				
Con	.383**	1.000	1.000		
Quan	.239*	.124	.841**	1.000	
Qual	.251*	.232*	.027	-.603**	1.000
E Rate	-.104	-.230*			

*p < .05

**p < .01

Anovas--20 LBDQ items. One way univariate anovas were performed on all 20 LBDQ items. Significant F ratios were discovered for item 4 ($p < .001$) (see Table VII) and item 11 ($p = .011$) (see Table VIII). The items are, "My supervisor maintains definite standards of performance," and "My supervisor does little things to make it pleasant to be a member of the group," respectively. The first item is an initiating structure item while the second is a consideration item.

Table VII

One-Way Anova

LBDQ--Form XII Item 4*

Source	dF	SS	MS	F
Between	3	64.5518	21.5172	6.890**
Within	58	181.1421	3.1231	
Total	62	245.6938		

*An initiating structure item

**$p < .001$

Table VIII

One-Way Anova

LBDQ--Form XII Item 11*

Source	dF	SS	MS	F
Between	3	28.2212	9.4071	4.086**
Within	58	133.5210	2.3021	
Total	62	161.7422		

*A consideration item

**$p = .011$

A Tukey--HSD test was used to find the locus of each of the significant F ratios.

With regard to item 4, it was discovered that PCA differed significantly from the other three praise conditions ($p < .05$). The mean scores were 4.9333, 2.6875, 2.3333, and 2.6875 respectively for praise conditions A, S, C, and SC. Supervisors who dispensed praise of either type, or their combination, were scored as significantly higher in initiating structure. They were seen as maintaining definite standards of performance.

A similar analysis of item 11 revealed that PCC was significantly different from praise conditions A and S ($p < .05$). The mean scores were 4.400, 4.6250, 2.8667, and 3.8125 for praise conditions A, S, C, and SC respectively. The supervisor who dispensed considerate praise was perceived as doing little things to make it pleasant to be a member of the group. The supervisors who dispensed non-evaluative verbal feedback and Structured Praise only were rated as significantly less inclined to do little things to make it pleasant to be a member of the group. In short, they were seen as less considerate.

Factor analysis--20 LBDQ items. A factor analysis utilizing principal factors with iterations and a varimax rotation was used to factor analyze the 20 LBDQ items across all praise conditions to see if the two factors of consideration and initiating structure would neatly reveal themselves. There were, in fact, six factors identified with eigenvalues ≥ 1 (see Appendix F for factor breakdown by items).

Next, individuals' scores on each of the six factors were converted to factor scores. One-way anovas were then run on each of the factors across all conditions to locate any significant differences (see Tables IX through XIV). A significant F ratio for factor one was obtained

($p = .038$) (see Table IX).

A Tukey--HSD test indicated that the F ratio was caused by a significant difference between PCC and PCA ($p < .05$). The mean factor scores were 0.4152, 0.2072, -0.4461, and -0.1783 for praise conditions A, S, D, and SC respectively. A supervisor who dispenses Considerate Praise is rated significantly more considerate on the items composing factor one than is a supervisor who dispenses non-evaluative verbal feedback. More specifically, the considerate supervisor is perceived as one who puts suggestions made by the group into effect, is willing to make changes, gives advance notice of changes, looks out for the personal welfare of the group, and does little things to make it pleasant to be a member of the group.

Table IX

One-Way Anova

Factor Score 1

Source	dF	SS	MS	F
Between	3	6.7667	2.2556	2.990*
Within	58	43.7582	0.7545	
Total	62	50.5249		

* $p = .038$

Table X

One-Way Anova

Factor Score 2

Source	dF	SS	MS	F
Between	3	3.9642	1.3214	1.681*
Within	58	45.5824	0.7859	
Total	62	49.5466		

* $p = .179$

Table XI

One-Way Anova

Factor Score 3

Source	dF	SS	MS	F
Between	3	0.9034	0.3011	0.433*
Within	58	40.3263	0.6953	
Total	62	41.2297		

* $p = .734$

Table XII

One-Way Anova

Factor Score 4

Source	dF	SS	MS	F
Between	3	2.8921	0.9640	1.365*
Within	58	40.9623	0.7062	
Total	62	43.8545		

* $p = .262$

Table XIII

One-Way Anova

Factor Score 5

Source	dF	SS	MS	F
Between	3	0.4456	0.1485	0.217*
Within	58	39.6669	0.6839	
Total	61	40.1125		

* $p = .883$

Table XIV

One-Way Anova

Factor Score 6

Source	dF	SS	MS	F
Between	3	5.4206	1.8069	1.819*
Within	58	57.6162	0.9934	
Total	61	63.0368		

*$p = .152$

Tukey versus least significant difference. As was mentioned earlier, the Tukey-HSD test was chosen because it is a relatively strenuous standard. If any significance is found when utilizing it, one can be reasonably sure that a real treatment effect does exist. Kepple (1975), on the other hand, indicates that to utilize such a stringent standard may unduly penalize the researcher by preventing the discovery of a valid significant effect. To find out if any significance was masked in the present experiment by using the Tukey-HSD test, the five original anovas of the five dependent variables (see Tables I through V) were subjected to the Least Significant Difference test. For the variable consideration, the LSD test indicated that PCA was significantly different from PCC and PCSC ($p < .05$). The Tukey test indicated that PCA was significantly different only from PCC ($p < .05$). No other penalty for using the stricter standard was found.

Discussion

Even a casual reading of the Results section indicates that most research hypotheses were not supported by the data. The only dependent variable on which significant results were obtained was consideration.

At this point it is appropriate to briefly address why it is likely

that significant results were not also obtained on the other four dependent variables of quantity, quality, error rate, and initiating structure.

With regard to quantity, quality, and error rate, the most plausible explanations seem to revolve around the task itself, the independent variables utilized and the subjects who participated in the research. The following explanations are speculative, however.

The choice of a task may have been less than well founded. The characteristics of this particular task are not well known. It is possible that a subject's performance on the task simply is not effected by the independent variables utilized herein or the placement of the independent variables within the experimental procedure. It may be a task of considerable stability that each individual performs at a particular characteristic level regardless of the variables impinging on him. Further, it is possible that performance on the task is not effected by the insertion of an independent variable before task performance. Performance on this particular task may, however, have been influenced in some way be insertion of an independent variable during task performance.

Another plausible line of reasoning has to do with the method with which the independent variables were dispensed in the conditions. As you recall, each subject received individual praise for the job they were doing. Also recall that praise may not be transsituational. That is, it is subject to different interpretations based on perceived subtle differences in the way it was delivered (Aronson, 1976). It is possible that the individual treatment of subjects introduced an excessive amount of within conditions error variance which outweighed the between conditions variance due to a treatment effect. This may have occurred even though care was taken to be consistent in dispensing the independent variables.

Finally, attention can be directed toward the subjects utilized herein. Since all subjects had been exposed to the greatest portion of an undergraduate introductory Psychology course they cannot be considered totally naive regarding the experimental method. They were probably aware that an experiment generally involves manipulation of subjects by some means to cause differential results between an experiment and one or more control groups. It is possible that when subjects received the present independent variables they saw it merely as an attempt to manipulate them and this was perceived as insincere. This point is crucial in the present research since praise, if perceived as manipulative or insincere, is generally not an effective motivator (Deutsch & Solomon, 1959; Maier, 1965). Since praise seems to be such a sensitive reinforcer, a possible conclusion to draw is that praise (of whatever type) may not function as a motivator at all in situations where individuals know they are participating in an experiment. Valid research on the independent variable praise may have to be undertaken in a naturalistic, uncontrived setting as opposed to an experimental, contrived setting.

With regard to the lack of significant difference between conditions on the dependent variable initiating structure, an equally simple explanation seems most correct. Since all subjects in all conditions utilized the same experimental format and followed the same highly (and obviously) structured procedures, there simply were not perceived differences in initiating structure across conditions. The experiment was simply not well designed to cause or enhance differences between conditions on this variable.

Indeed, because of the possible aforementioned flaws in experimental design, the only dependent variable that could reasonably have been

expected to differ significantly between conditions was consideration. Happily it did and attention may now be directed toward those differences.

A very consistent picture emerges from the data. Please recall that PCC appeared to be the most effective condition for enhancing the subjects' perceptions that their supervisor was considerate. On the gross measure of consideration (scales 11 through 20 on LBDQ) the supervisor in PCC was rated significantly higher ($p < .05$) than the supervisor in PCA while supervisors in PCS and PCSC were not. Next, on the analysis of variance of the first factor score, consisting of original consideration items 18, 16, 19, 20, and 11 (see Appendix F), the supervisor in PCC was rated significantly higher ($p < .05$) than supervisors in the other conditions. Finally, on the analysis of variance of LBDQ item 11 (My supervisor does little things to make it pleasant to be a member of the group--a consideration item), the supervisor in PCC was rated significantly higher ($p < .05$) than supervisors in all other conditions. Considerate Praise seems to be aptly named. The supervisor who dispensed Considerate Praise was rated as being highly considerate.

The data further indicated that supervisors who utilize any of the praise types or their combination are rated significantly higher ($p < .05$) in consideration than the supervisor who dispensed non-evaluative verbal feedback on LBDQ item 4 (My supervisor maintains definite standards of performance--an initiating structure item). This finding sets the stage for what may be the most important information coming out of this study. Only the supervisor who dispensed Considerate Praise (PCC) was perceived by his employees as both maintaining standards and doing "little things" to make it pleasant to be a member of the group. In praise conditions

S and SC, although the supervisors were perceived as maintaining definite standards, they were not perceived as doing little things to make it pleasant to be a member of the group. The supervisors maintaining of standards in these groups was apparently, at best, a neutral behavior. At worst, it may have been perceived as highly negative. The implication is that Structured Praise (PCS) and the System of Praise (PCSC) may not have been perceived as praise at all, but merely as a method of maintaining standards. It is interesting to note that even though the supervisor in PCC seems to be perceived as being manipulative in a sense (setting and maintaining standards), he is still seen as being pleasant--fostering a pleasant work environment. This seems to contradict the idea that praise doesn't motivate people in a favorable way if it is perceived as manipulative (Maier, 1965).

Although a speculative matter, the data seem to indicate that supervisors should utilize Considerate Praise where possible. It would appear to allow them to set and maintain standards (of any and all kinds?) while at the same time enhancing employee job satisfaction and happiness by making it pleasant to be a member of the work group. The data suggest that the supervisor who dispenses Considerate Praise seems to be the only one who is perceived to care about fostering a pleasant work environment. Future research in the field should be addressed at finding out if the dispensing of Considerate Praise in a section or department actually improves the mental health of the employees, leads to a reduction in absenteeism and turnover, etc. The data herein imply that such reductions and improvements might be achieved through the dispensing of Considerate Praise by supervisors.

Locke (1976) reminds us that employee satisfaction--happiness is

positively correlated with a person's attitude toward life, toward himself, toward his family. It can effect his physical health and how long he lives. It may be indirectly related to his mental health and adjustment, and plays a causal role in such things as absenteeism, turnover, grievances, insubordination, sabotage, and other job-related behavior.

To speculate further, if happiness is indeed the ultimate goal in life as Locke (1976) indicates, the data suggest that only the supervisor in PCC was perceived by employees as assisting them to obtain this most important of all personal goals. Through the dispensing of Considerate Praise, the supervisor seems to be engaging in what may be the most fundamental of all goal integrations. Herzberg et al. (1959) would predict that such an integration would lead to a more effective organizational performance.

There are two minor findings which are of interest in the present research.

Engaging in more speculation, there are data which suggest that the mixing of Considerate Praise with Structured Praise into a system of praise (on an equal basis) actually dilutes the effectiveness of the Considerate Praise. This is true specifically on the analysis of LBDQ item 11 (refer to page 26). The supervisor in PCC was rated significantly higher in consideration than the supervisors in PCA and PCS. When the Considerate Praise was mixed with the Structured Praise in PCSC, the statistical significance was lost. This result is counter to the hypothesized superiority of the PCSC put forth by Gullett and Risen (1975) and Slusher (1975).

This raises several questions. If the types were mixed on an

unequal basis would the effect still be the same? Is there an optimum mix? Should the two types be mixed at all in the same system? Is there some optimum time relationship between the types which must be present for the system to be effective? On a practical level, data in the present study imply that industries should not attempt to mix the two types--using Considerate Praise exclusively. It is possible, though again speculative, that an individual supervisor who dispenses both types of praise may not be as effective as one who dispenses only Considerate Praise. Obviously, more research is needed in these areas.

Another finding revolves around the data reported on page 25 which indicates that initiating structure scores across all conditions were negatively correlated ($r = -.239$; $p = .031$) with quantity. Although the practical implication here is that supervisors who are high in initiating structure without also being considerate may reduce the output of their work groups, a consistent relationship between productivity and initiating structure has not been found (Stodgill, 1974). It is possible, however, that other dysfunctional behaviors on the part of the employees might result from such a supervisor pattern (Stodgill, 1974).

Future Research

Besides those areas of future research mentioned above, there are other questions regarding the use of Considerate Praise which need to be researched. For instance, can a supervisor who is an extreme theory X type (McGregor, 1960) be taught to use Considerate Praise? How will his employees react to his use of Considerate Praise? What types of employee outputs will be effected, and in what direction, when other types of supervisors use Considerate Praise? Will Considerate Praise still favorably effect employee outputs if the praiser is perceived as

having something to gain by dispensing the praise? How much Considerate Praise is enough? Too much? Are there some supervisors who are incapable of successfully utilizing Considerate Praise? What type of person might they be? Can you teach on old dog a new trick?

Even before such questions are addressed, it would be advisable to attempt a replication of the present study using several "supervisors." This should be done to determine if the results obtained herein were a result of the common administration of conditions by one particular supervisor (experimenter), or a valid treatment effect which may be achieved by any experimenter attempting a replication.

Summary

The major research hypotheses were designed to attempt to lend support or contradict the idea that a system of praise consisting of Considerate and Structured Praise is superior to either type of praise used alone, or to a condition of non-evaluative verbal feedback. The results suggest that the Considerate Praise condition (PCC) is the superior condition for influencing employees' attitudes in a favorable way. No condition studied appeared to significantly change subjects' behaviors (dependent variables). It is possible that, had other types of behaviors been chosen for study, some differences would have appeared.

Based on the present research, the implication is that supervisors should utilize Considerate Praise when possible. It is possible that the dispensing of such praise might enhance the job satisfaction/happiness of employees while reducing such things as absenteeism, turnover, grievances, etc. It is also possible that the use of such praise may improve employee mental health, self-esteem, self-confidence, and other psychological variables which may, in turn, lead to healthier employees with possibly

longer life expectancies.

Finally, the use of Considerate Praise by supervisors may assist in showing employees that their ultimate personal goal, happiness, and the goals of the organization are not necessarily mutually exclusive. Mutually inclusive goals tend to improve employee and organizational performance (Herzberg et al., 1959).

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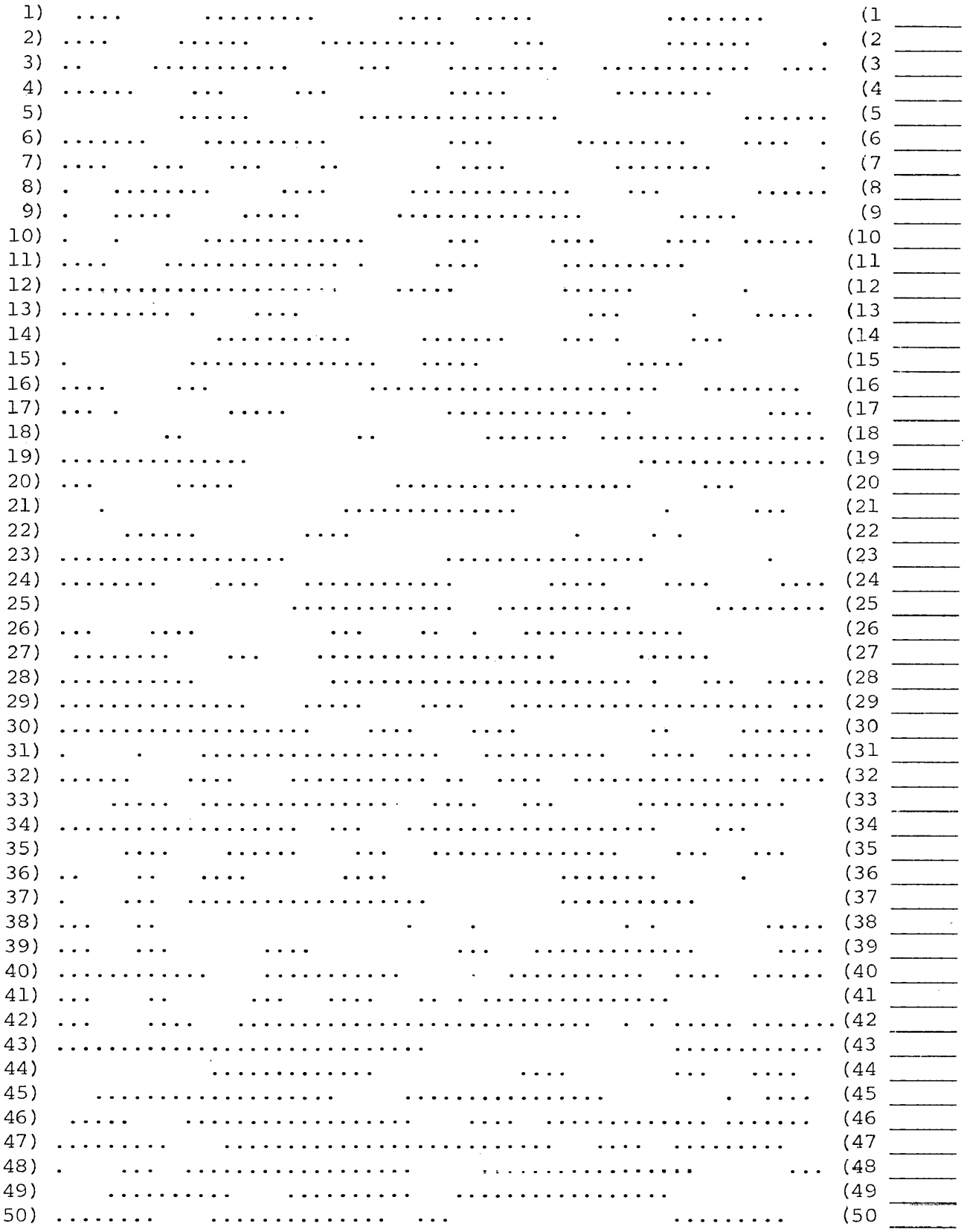
APPENDIX A

DOT COUNTING SHEETS



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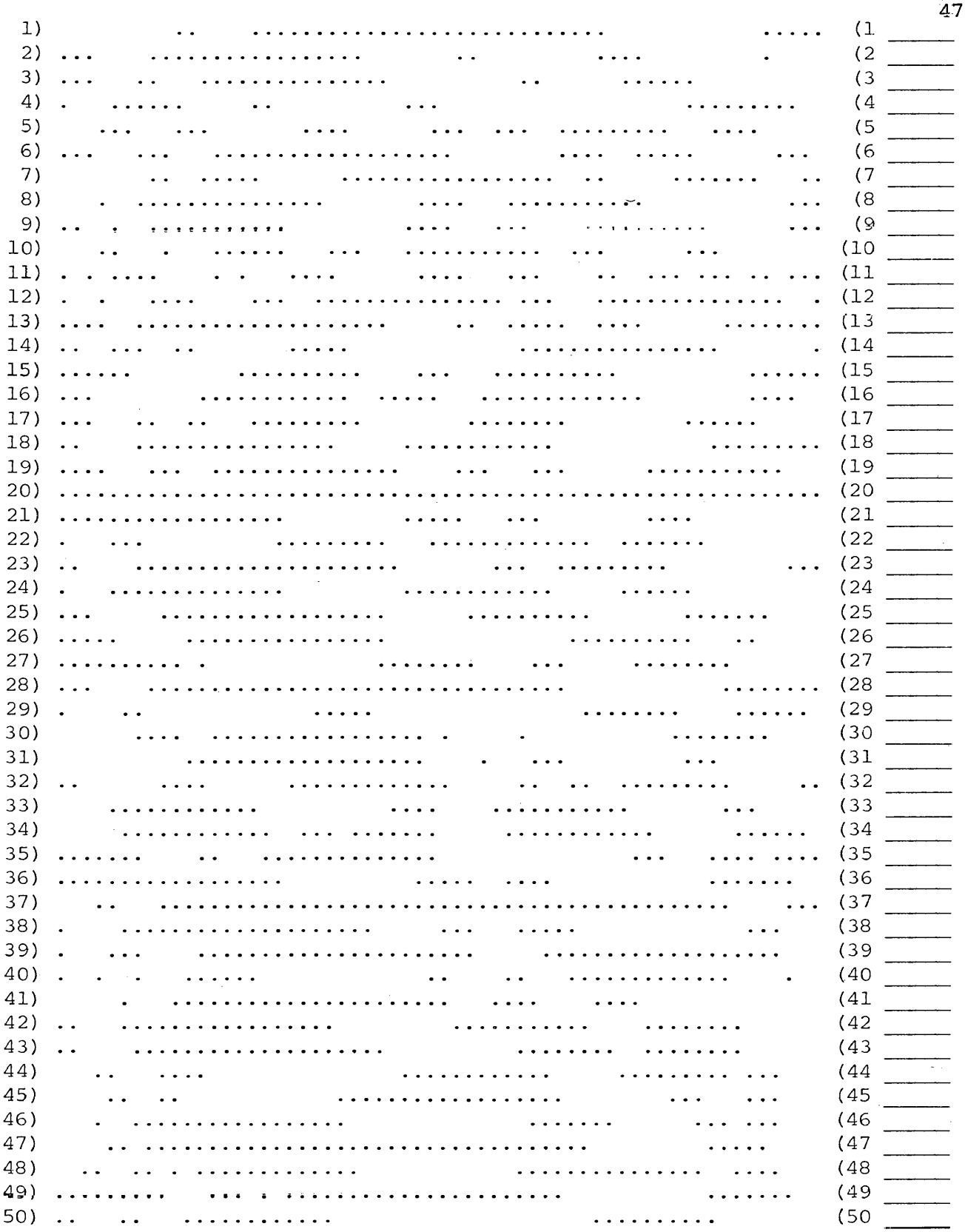

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APPENDIX B

FORMAL APPRAISAL FORM

FORMAL APPRAISAL FORM

Note to Supervisor: The employee must be told how well he is doing. This form must also be shown to the employee so that he may see how he is rated.

1. At the present time, I would rate the job the employee is doing as:

1	2	3	4	5	6	7
extremely poor	poor	fair	average	good	very good	excellent

2. At the present time, I would rate the job the employee is doing as:

1	2	3	4	5	6	7
extremely poor	poor	fair	average	good	very good	excellent

APPENDIX C

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE

FORM XII

SUPERVISORY APPRAISAL QUESTIONNAIRE

INSTRUCTIONS

For each item on this questionnaire, choose the alternative response which best describes how characteristic that item is of your supervisor's behavior since the beginning of the first dot-counting task. There are no right or wrong answers to these questions. Please answer every question as best you can based on what you have seen of your supervisor.

Answer the items by circling one of the numbers (1 through 6) under each item that most closely defines your opinion of how characteristic that item is of your supervisor's behavior.

For example, suppose one of the items reads as follows:
"My supervisor makes all of his decisions at his desk."

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

If you feel that such behavior is "not at all characteristic" of your supervisor, based on what you have seen of him, then you would circle the "6." On the other hand, if you feel that such a behavior is, to a certain degree, characteristic of your supervisor, based on what you have seen of him, then circle that number (other than "6") that you feel best describes the degree to which it is characteristic of him.

Are there any questions?

SUPERVISORY APPRAISAL QUESTIONNAIRE

1. My supervisor makes his attitudes clear to the group.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

2. My supervisor assigns group members to particular tasks.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

3. My supervisor schedules the work to be done.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

4. My supervisor maintains definite standards of performance.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

5. My supervisor encourages the use of uniform procedures.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

6. My supervisor asks that group members follow standard rules and regulations.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

7. My supervisor lets group members know what is expected of them.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

8. My supervisor decides what shall be done and how it shall be done.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

9. My supervisor makes sure that his part in the group is understood by group members.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

10. My supervisor tries out his ideas with the group.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

11. My supervisor does little things to make it pleasant to be a member of the group.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

12. My supervisor keeps to himself.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

13. My supervisor refuses to explain his actions.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

14. My supervisor acts without consulting the group.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

15. My supervisor treats all group members as his equals.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

16. My supervisor is willing to make changes.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

17. My supervisor is friendly and approachable.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

18. My supervisor puts suggestions made by the group into operation.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

19. My supervisor gives advance notice of changes.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

20. My supervisor looks out for the personal welfare of group members.

Highly Characteristic	1	2	3	4	5	6 Not at all Characteristic

APPENDIX D

STANDARD RATE SHEET

"STANDARD RATE SHEET"

First Ten Minutes		Second Ten Minutes	
Subjects	Lines of Output	Subjects	Lines of Output
1	21	1	24
2	23	2	24
3	24	3	25
4	25	4	26
5	26	5	27
6	26	6	28
7	28	7	28
8	29	8	30
9	29	9	31
10	30	10	33
11	31	11	34
12	32	12	36
13	34	13	38
14	35	14	41

APPENDIX E

EXPERIMENTAL PACKET

INSTRUCTIONS

Thank you very much for volunteering for this research project. For the next few minutes you will be "employees" and I will be your "Supervisor." Do exactly as I say during this portion of the research. Do nothing until I tell you to do so. Please do not thumb through the pages of this packet until you are told to turn the pages.

The "production task" you will be performing consists of counting lines of dots. Each line will have a different number of dots on it. You may point at the dots when counting them only with your fingers. You may not place any straight-edge under the lines as you count them. You will place your tally of the number of dots you counted for a line to the right of the line in the space provided.

Both your quantity of production (number of lines counted) as well as your quality (number of lines counted correctly) are important. Count as quickly and accurately as you can.

Let's do a line for practice

1)..... . . ..(1 _____

Are there any questions about how to do the task?

Please now go into one of the small rooms--one person per room--and wait for my signal to begin counting the dots on the next page.

If I should happen to come into your room to check how you are doing, please continue to work and do not attempt to talk to me.

1) .... (1 _____
2) .... (2 _____
3) .. .. (3 _____
4) .... (4 _____
5) .... (5 _____
6) .... (6 _____
7) .... (7 _____
8) . ... (8 _____
9) . ... (9 _____
10) . . .. (10 _____
11) .... (11 _____
12) .... (12 _____
13) .... (13 _____
14) .... (14 _____
15) . ... (15 _____
16) .... (16 _____
17) ... . (17 _____
18) .. .. (18 _____
19) .... (19 _____
20) ... . (20 _____
21) . ... (21 _____
22) .... (22 _____
23) .... (23 _____
24) .... (24 _____
25) .... (25 _____
26) ... . (26 _____
27) .... (27 _____
28) .... (28 _____
29) .... (29 _____
30) .... (30 _____
31) . . .. (31 _____
32) .... (32 _____
33) .... (33 _____
34) .... (34 _____
35) .... (35 _____
36) .. .. (36 _____
37) . ... (37 _____
38) ... . (38 _____
39) ... ... (39 _____
40) .... (40 _____
41) ... . (41 _____
42) ... . (42 _____
43) .... (43 _____
44) .... (44 _____
45) .... (45 _____
46) .... (46 _____
47) .... (47 _____
48) . ... (48 _____
49) .... (49 _____
50) .... (50 _____

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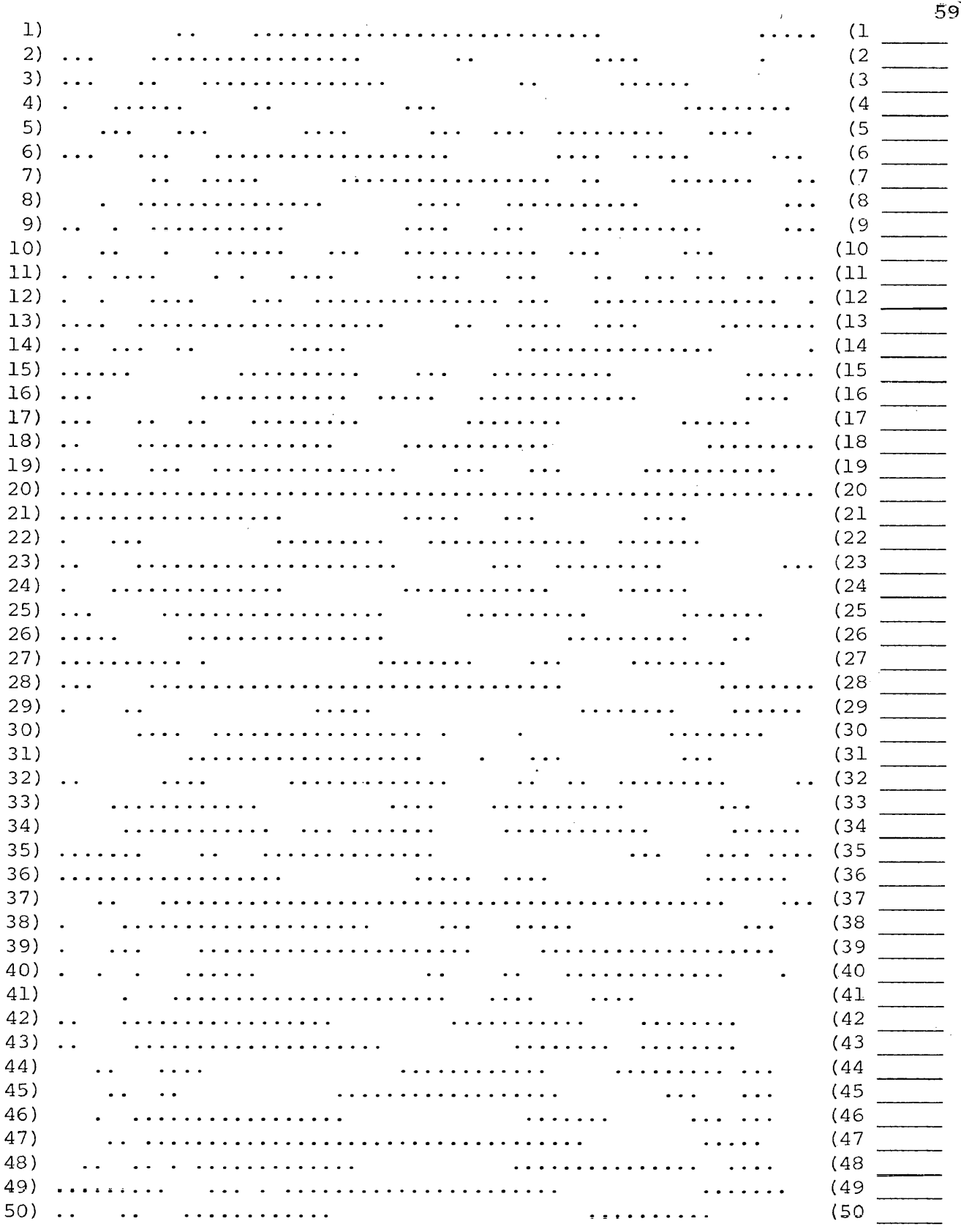

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SUPERVISORY APPRAISAL QUESTIONNAIRE

INSTRUCTIONS

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Are there any questions?

SUPERVISORY APPRAISAL QUESTIONNAIRE

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3. My supervisor schedules the work to be done.

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4. My supervisor maintains definite standards of performance.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

5. My supervisor encourages the use of uniform procedures.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

6. My supervisor asks that group members follow standard rules and regulations.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

7. My supervisor lets group members know what is expected of them.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

8. My supervisor decides what shall be done and how it shall be done.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

9. My supervisor makes sure that his part in the group is understood by group members.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

10. My supervisor tries out his ideas with the group.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

11. My supervisor does little things to make it pleasant to be a member of the group.

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12. My supervisor keeps to himself.

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13. My supervisor refuses to explain his actions.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

14. My supervisor acts without consulting the group.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

15. My supervisor treats all group members as his equals.

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16. My supervisor is willing to make changes.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

17. My supervisor is friendly and approachable.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

18. My supervisor puts suggestions made by the group into operation.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

19. My supervisor gives advance notice of changes.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

20. My supervisor looks out for the personal welfare of group members.

Highly Characteristic	1	2	3	4	5	6	Not at all Characteristic

APPENDIX F

FACTOR ANALYSIS--20 LBDQ ITEMS

FACTOR ANALYSIS OF LBDQ--FORM XII

	ITEM #			
Factor one	(C)*	18.	(.802)**	My supervisor puts suggestions made by the group into operation.
	(C)	16.	(.700)	My supervisor is willing to make changes.
	(C)	19.	(.540)	My supervisor gives advanced notice of changes.
	(C)	20.	(.534)	My supervisor looks out for the personal welfare of the group.
	(C)	11.	(.502)	My supervisor does little things to make it pleasant to be a member of the group.
Factor two	(C)	13.	(.753)	My supervisor refuses to explain his actions. (R)***
	(IS)	10.	(.625)	My supervisor tries out his ideas with the group.
	(C)	12.	(.577)	My supervisor keeps to himself. (R)
	(C)	17.	(.530)	My supervisor is friendly and approachable.
	(C)	14.	(.500)	My supervisor acts without consulting the group. (R)
Factor three	(IS)	7.	(.616)	My supervisor lets group members know what is expected of them.
	(IS)	8.	(.568)	My supervisor decides what shall be done and how it shall be done.
	(IS)	5.	(.454)	My supervisor encourages the use of uniform procedures.
Factor four	(IS)	1.	(.707)	My supervisor makes his attitudes clear to the group.
	(C)	15.	(.453)	My supervisor treats all group members as his equals.
Factor five	(IS)	3.	(.609)	My supervisor schedules the work to be done.
	(IS)	6.	(.485)	My supervisor asks that group members follow standard rules and regulations.
	(IS)	4.	(.407)	My supervisor maintains definite standards of performance.
Factor six	(IS)	9.	(.984)	My supervisor makes sure that his part in the group is understood by group members.

* Item type C = Consideration, IS = Initiating Structure

** Item loading

*** (R) = Reverse scored

APPENDIX G

DESCRIPTIVE STATISTICS

[redacted]

Descriptive Statistics

Five Dependent Variables Across All Conditions

	PCA				PCS				PCC				PCSC			
Variable	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range
Quantity	62.20	8.20	2.12	50.00-78.00	64.44	11.44	2.86	49.00-79.00	66.47	11.26	2.91	46.00-90.00	61.06	7.26	1.82	51.00-79.00
Quality	48.33	10.57	2.73	28.00-62.00	51.69	14.67	3.67	27.00-76.00	57.60	12.23	3.16	39.00-84.00	50.63	9.70	2.43	35.00-75.00
Error Rate	13.87	8.93	2.31	4.00-31.00	12.75	7.28	1.82	2.00-25.00	8.87	5.01	1.29	1.00-18.00	10.44	6.06	1.51	1.00-22.00
Initiating Structure	28.40	9.20	2.34	15.00-44.00	26.06	7.98	2.00	12.00-40.00	26.20	8.52	2.20	10.00-39.00	24.44	5.45	1.36	13.00-33.00
Consideration	40.87	8.26	2.13	28.00-55.00	36.56	8.40	2.10	21.00-48.00	32.40	7.01	1.81	16.00-42.00	34.38	6.92	1.73	18.00-46.00

[redacted]

[redacted]

Descriptive Statistics

Two Significant LBDQ Items Across All Conditions

	PCA				PCS				PCC				PCSC			
	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range
Item 4	4.93	1.75	0.45	1.00-6.00	2.69	2.06	0.51	1.00-6.00	2.33	1.54	0.40	1.00-6.00	2.69	1.66	0.42	1.00-6.00
Item 11	4.40	1.59	0.41	1.00-6.00	4.63	1.50	0.38	2.00-6.00	2.87	1.41	0.36	1.00-6.00	3.81	1.56	0.39	1.00-6.00

[redacted]

[redacted]

Descriptive Statistics

Six LBDQ Factor Scores Across All Conditions

	PCA				PCS				PCC				PCSC			
Factor	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range	Mean	Standard Deviation	Standard Error	Range
I	0.42	0.89	0.23	-0.90-1.85	0.21	1.00	0.25	-1.60-1.60	-0.45	0.71	0.18	-1.53-0.57	-0.18	0.84	0.21	-1.72-1.25
II	0.44	0.87	0.22	-0.58-2.17	-0.21	1.03	0.26	-1.50-1.47	-0.11	0.77	0.20	-1.20-1.03	-0.10	0.84	0.21	-1.38-1.43
III	0.04	0.79	0.20	-1.10-1.31	0.07	1.06	0.27	-1.22-2.86	0.10	0.82	0.21	-1.43-1.31	-0.20	0.60	0.15	-1.06-0.96
IV	-0.22	0.62	0.16	-0.98-1.12	0.34	0.84	0.21	-1.06-1.84	0.02	0.81	0.21	-1.21-1.40	-0.14	1.03	0.26	-2.04-2.09
V	0.10	0.90	0.23	-0.90-2.12	-0.12	0.88	0.22	-1.35-2.76	0.06	0.49	0.13	-0.82-1.26	-0.04	0.94	0.24	-1.22-2.09
VI	-0.13	1.16	0.30	-1.22-3.18	-0.25	0.73	0.18	-1.22-1.11	-0.13	0.91	0.23	-1.08-1.60	0.49	1.13	0.28	-0.85-2.73

[redacted]