THE RELATIONSHIP OF REWARD AND OTHER EQUITY FACTORS TO EMPLOYEE EFFORT AND SATISFACTION

By

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CHAPTER I

BACKGROUND

Introduction

Adams (1963) has presented a theory of inequity concerning the perceived fairness of social exchanges and responses to perceived conditions of inequity. For purposes of this study, the relevant exchange is that of inputs and outcomes between employee and employer. Inputs can be described as those things a person contributes to an exchange such as effort, skill, education or experience. Outcomes are those things returned to Person such as pay, recognition or status.

Person is felt to be consciously or unconsciously comparing his ratio of outcomes/inputs to another person's ratio or to another group's ratio. This comparison person is referred to as "Other" and the comparer as "Person." Specifically, if Person perceives his ratio of inputs and/or outcomes differs from a relevant Other's ratio of inputs and/or outcomes, inequity exists. Adams points out that it is Person's perceptions of inputs and outcomes that are important, and that the perceptions may not always coincide with the actual situation.

Adams continues by postulating that when inequity exists, it produces tension in Person. The greater the inequity, the greater the tension and the corresponding need to reduce it. If tension is great enough, Person will take action to restore balance to the exchange and reduce tension. Adams lists several possible ways Person can take action. Possibilities include (1) changing level of Person's own inputs
or outcomes, (2) psychologically distorting perception of Person's or Other's inputs or outcomes, (3) acting on Other to force him to change levels of inputs or outcomes, or (4) changing Other. Adams notes that some of these possibilities are more viable alternatives and will be more easily accepted by Person.

Before discussing this study specifically, it is best to explore briefly a few previous findings concerning pay, intrinsic and other extrinsic factors in relation to equity theory.

A. Hourly Underpayment

Most equity studies have emphasized equity of pay, and used pay to illustrate equity effects. These studies dealt with over and under payment in both hourly and piece-rate categories. Adams' theory postulates that when Person perceives underpayment in the hourly situation, the tension produced by inequity will result in lower performance as the means to restore balance (equity) and reduce tension. This action has been questioned by Weick (1964, 1966) who believes Person will not restrict effort as a means to balance the relationship. He argues that Person will cognitively distort the intrinsic outcomes as higher than normal and in this way produce perceived equity. Basically Weick is arguing that rather than actually reducing input (effort), it is easier for Person to enhance, or distort, his perception of intrinsic outcome. This "task enhancement" would also produce the desired perception of equity.

Other studies have supported Weick's theory and even point to the possibility of increased effort due to the distorted higher intrinsic outcomes (Valenzi and Andrews, 1971 and Lawler, 1968b). This does not
However, seem logically consistent with the findings that increased turnover also accompanies underpayment (Valenzi and Andrews, 1971 and Telly, Trench and Scott, 1971). If the perception of task is enhanced, it would seem that this should increase satisfaction, and turnover would be reduced by underpayment. At best, underpayment should have no effect on turnover, according to the task enhancement theory.

A more logically sound argument would be that underpayment leads to dissatisfaction and lowered effort as a means to balance the equity ratio and reduce tension. This form of manipulation should be especially appealing to employees when the job is one that makes task enhancement, or any other adjustment of outcomes, difficult. In an equity review, Pritchard (1969) found underpayment results to generally support equity theory. It is interesting to note that in the piece rate situation, underpayment leads to the opposite results of increased effort, as an attempt to obtain higher outcomes by producing more pieces (Andrews, 1967, and Lawler and O'Gara, 1967). This illustrates that when outcomes are controllable, Person may manipulate them in order to balance ratios.

B. Hourly Overpayment

As with any inequitable situation, hourly overpayment produces tension, which in this case results in increased effort by Person. Some reports have not confirmed this result (Pritchard, 1969 and Valenzi and Andrews, 1971) and argue that if a subject's self-esteem is attacked as part of the intervention, high productivity is an attempt to prove subject's worth (Lawler, 1968b). Studies do however generally indicate that high productivity results from hourly overpayment (Adams and
Rosenbaum, 1962, Goodman and Jorgenson, 1972). Many studies have used control groups to minimize or isolate any effects of insecurity or self esteem attack. When subjects are told that their overpayment is caused by uncontrollable external conditions, the results seem to confirm equity theory predictions. Again it seems logical that increased effort is an easy way to reduce tension of overpayment and produce the desired balance in relation to Other.

C. Intrinsic and Extrinsic Inequity

Few studies have been made linking effects of intrinsic and extrinsic inequity to Person's satisfaction or performance. Telly, French and Scott (1971) found that supervision, working conditions, and social contact inequity had significant depressing effects on employee motivation and satisfaction. Intrinsic aspects were also found to be important to employee satisfaction. Deci (1972) found that extrinsic inequity due to overpayment increased productivity, but caused dependence on money which decreased intrinsic motivation. Since few studies have investigated results of intrinsic and extrinsic inequity, this study will direct attention to determination of these inequity effects.
CHAPTER II
CRITICISMS AND ISSUES UNRESOLVED

As discussed in Chapter I, equity theory results have been questioned in the past concerning several methodological problems that have occurred in the studies. A major criticism of past studies has been the overuse of pay adjustments as the primary means of inducing feelings of inequity. To help resolve the pay criticism, this study has also taken into consideration intrinsic and other extrinsic factors. In addition, the study will attempt to avoid some of the other equity study criticisms of task inefficiency, unavailable other and self esteem attacks.

A. Task Inefficiency

Two problems have been mentioned concerning previous equity study tasks used to assess performance. Pritchard (1969) and Goodman and Friedman (1971) believe that tasks created by laboratory studies leave too many possibilities for error. The most controversial task assignment was that of subjects obtaining interviews. The measurement of quality on interviews is difficult and quantity of interviews may easily be faked by subjects. These criticisms seem valid.

A second question also causes doubt about the results of many equity studies. The criticism is that not enough time has been used during each study for a true test of results. A few hours work is not seen as sufficient time to obtain valid and reliable results.
This study will avoid these problems by use of an actual work group, and by conducting the study in the field. This real life situation reduces the possibility of criticism of too short a time span being covered. Laboratory studies would become excessively expensive if a long time period was under consideration. Also, in this study the task is standard. Possibilities of error in measurement always exist, especially when dealing with perceptions, but an attempt was made to minimize them.

B. Unavailable Other

Weick (1966) pointed out that in many equity studies, Person lacked a relevant coworker or knowledge of Others that could be used for comparison. If no relevant comparisons are possible, the results of the study are highly questionable. In these cases, comparisons by Person are often made with a fictitious Other.

In real life situations, Others are readily available and comparisons are constantly being made. In this study, subjects will be a lower education and occupational group. Goodman (1974) reported that in this case, referents would probably be chosen from inside the organization. This reduces the problem of fictitious or unavailable Others. Recruitment problems (Goodman and Friedman, 1971) are not relevant to this study since subjects are already at hand in a field situation.

C. Self Esteem and Insecurity Effects

As observed in current literature, there is much dispute about the hourly overpayment effect of increased productivity. Several authors (Pritchard, 1969, Lawler, 1968a, and Valenzi and Andrews, 1971) argue
that high productivity is caused by attacking subjects' self esteem, thus causing a need to reinforce their self-concept. When a part of the laboratory intervention does attack self esteem, this is believed to also produce job insecurity. These studies point out that subjects overpaid "by circumstance" do not produce more than equitably paid subjects.

This explanation is not seen as valid in other studies that attempt to minimize or reverse the circumstance by lowering pay as the intervention (Adams and Jacobsen, 1964). A later study by Goodman and Friedman (1968) used control groups in addition to experimental groups and found the self esteem factors to probably be less important than inequity.

The advantage of a field study is that intervention is not necessary. Naturally perceived inequities can be measured and possibly help settle this dispute. In summary, the problems of unavailable Other, task inefficiencies, and self esteem attacks are avoided by making a field study. If enough field studies are completed, equity theory disputes over these topics may be resolved. One of the major purposes of this study is to contribute to the resolution of these criticisms.

D. Purposes of Study

This study measures the effects of perceived equity of payments, intrinsic factors and extrinsic factors on employees satisfaction and effort in an hourly payment situation. Several aspects make this study unique in comparison to other equity studies. One is that respondents are from a lower economic class than most other equity study subjects have been drawn from. The applicability of equity theory to this very
large group of lower paid employees is of great significance. The plugging of this gap relates to a problem encountered throughout industry, the motivation of hourly workers at the lower pay levels.

Secondly, little research has dealt with equity of intrinsic and extrinsic factors and their relationship to effort and satisfaction. With most research being emphasized toward pay, it seems appropriate that intrinsic and other extrinsic factors should be explored. These factors could easily prove to be much more important to employees than is pay.

A third unique aspect of this study is that satisfaction is also tested. Satisfaction has not been shown to have a strong relationship to performance (Lawler & Porter, 1967) but most employers value employee satisfaction as a moral goal and make a positive commitment to maximize satisfaction as well as performance. The moral aspects of satisfaction study make it imperative that employers attempt to maximize both effort and satisfaction.

The importance of the study of employee effort is obvious. If these equity to effort relationships can be clearly defined and understood, salary and policy administration can take a more effective course of action. Effort, resulting in better job performance, is continually being measured and relates directly to our standard of living.

An additionally interesting note is that the subjects are an actual work group, and the study is conducted in the field. This real life situation overcomes many of the criticisms of equity studies. Since Person has a close and relevant Other that he deals with every working day, the results may be more meaningful. The criticisms of task inefficiency, unavailable other and self esteem attacks have marked equity theory and can be reduced by making a field rather than a laboratory study.
CHAPTER III

RESEARCH DESIGN & HYPOTHESES

A short background of equity theory has been given, and the issues currently unresolved have been discussed. The purposes of the study should now be followed by specifics of what the study is about, and methods used to investigate these issues.

A. Hypotheses

Four hypotheses are designed in an attempt to clarify equity theory, and investigate issues unresolved. As previously mentioned, the independent variables are hourly underpayment, hourly overpayment, other extrinsic rewards and intrinsic rewards. The purpose of the study is to determine the relationship of these independent variables to the dependent variables of satisfaction and effort. The four hypotheses were:

I. There is a positive association of perceived pay to perceived effort.

II. There is a negative association of perceived pay inequity to perceived general job satisfaction.

III. There is a positive association of perceived intrinsic and extrinsic rewards to perceived effort.

IV. There is a positive association of perceived intrinsic and extrinsic rewards to perceived general job satisfaction.

The hypotheses follow the predictions as they would be made by equity theory and for the most part, results of previous research. The first hypothesis would associate perceived high pay to high
effort in the hourly situation given. Correspondingly the hypothesis also
follows equity theory in that perceived underpayment will decrease ef-
fort. As discussed by Weick and Messer (1968) and Adams (1965) several
ways to seek equity are possible. Some of them are to alter outcomes
(wages), cognitive distortion (task enhancement), leaving the field,
changing Other or acting on Other. In this study it would be very hard
for subjects to alter outcomes or cognitively distort the status of the
task (custodial work). Since leaving the field and acting on Other is
the result of only extreme cases, effort manipulation seems the most
viable alternative.

The second hypothesis, because little research has been done, was
inferred from equity theory and the existing research. It states that
the association of perceived pay inequity, either overpayment or under-
payment, will be negative to general job satisfaction. Of course, low
pay usually arouses dissatisfaction, but hourly overpayment is also be-
lieved to relate negatively.

It is interesting that satisfaction would be low when subjects per-
ceive overpayment. This was the case however in a study by Pritchard,
Dunnette and Jorgenson (1972). It can be explained as the high degree
of tension resulting from the worry that higher than normal pay increased
job requirements. Subjects were afraid these job requirements could not
be met and that pay was inconsistent with present responsibilities (Giles
and Barrett, 1971).

This satisfaction theory is generally supported in a study by Finn
and Lee (1972). They found greater dissonance, less favorable working
conditions and a higher propensity to terminate from those in the in-
equity sample. Vroom (1964) also contended that workers prefer equity
and emphasized that they perform to maximize equity.

The third hypothesis predicts that as intrinsic and extrinsic rewards are perceived as high, effort will also be perceived as high in an attempt to balance the relationship. The corresponding prediction is that low perceived rewards associate to low perceived effort. This extends the equity theory work that emphasized pay to include the variables of intrinsic and other extrinsic rewards. Since little previous research has been completed, it is assumed relationships will be comparable to those of pay studies.

The fourth hypothesis also reaches into a relatively unexplored area. It predicts the same positive relationship of intrinsic and extrinsic rewards to job satisfaction. As intrinsic and extrinsic rewards are perceived as high in comparison to relevant others, high satisfaction would result. Low rewards would associate with lower satisfaction. Since intrinsic rewards are a personal matter and other extrinsic rewards may not be as important relative to pay, overreward may not produce enough tension to reduce satisfaction below that of perceived equity. In lower paid groups, pay becomes so important that overpayment should produce excessive tension. Intrinsic and other extrinsic over-reward will probably not produce this level of tension. The items which make up the factors of intrinsic and other extrinsic variables will be given in another section explaining the questionnaire.

B. Subjects

The study tested inequity perceptions of a group of hourly paid custodial workers. Since the study deals with employees at lower wage rates, it is different than many other studies. Of the one hundred and
fifty workers, student and other part-time employees were excluded leaving over one hundred full-time permanent employees as possible subjects. Also excluded were the four foremen and the superintendent.

The job content of the group is highly similar and pay is also inside a very narrow range. Approximately fifteen percent pay differential exists from the highest to lowest paid employee in respondent group.

In 1970 an extensive cleaning assignments study was made by independent management consultants which enumerated tasks and square feet cleaning assignments per person, dependent on thoroughness of cleaning desired. The operation of the group closely follows this study, making assignments per employee very consistent and as equitable as practical. New employees are all hired at the minimum of the present pay range. Annual pay raises, above the current range minimum, closely correspond to training and longevity. As previously mentioned, similarity of tasks and budget restraints do not allow the highest paid employee to go more than approximately fifteen percent above minimum. The result is what appears to be a highly equitable situation, roughly equal work and pay.

C. Instruments

The main instrument was a fifty-four item questionnaire completed by subjects. The questionnaire is included as an appendix to this report. The first eighteen questions were a measure of overall job satisfaction created by Brayfield and Rothe (1951). The satisfaction questions are very general, easily read, and are designed to obtain an index of overall satisfaction by using a short questionnaire and a Likert scoring system.

The remainder of the questions are designed using the same Likert
scale and short, easily read questions. These questions are adaptations of the Minnesota Satisfaction Questionnaire (Weiss, et al., 1967) but reworded to measure equity perception rather than satisfaction. Three questions deal with effort, five with pay, fourteen with other extrinsic factors, and fourteen with intrinsic factors. They are in random order with about half stated in comparative terms and half in absolute terms. Some questions are worded negatively and others positively. A half and half split was approximated among negative and positive wording.

Examples of intrinsic question items are achievement, independence, social service and creativity. Extrinsic item examples are security, recognition, supervision and working conditions. The issue of each question is readily discernable when reading the questionnaire. All the questions were written assuming that a short, easily understood question was best.

Questions were designed so that each subject had both an absolute and a comparison question included. For example in the intrinsic variable, fourteen questions were included, seven each of comparison and absolute wording. The comparison questions directly measured perceptions of equity, while the absolute questions served as a reference and check of respondents' general feeling but not in comparison to relevant Other.

A second instrument was administered to test the superintendent's and foremen's perceptions of respondents' efforts. It is also included in the appendix and shows three questions relating to effort. The questions were the three effort questions used in the other questionnaire but with slight alterations. The superintendent completed these three questions relating to each respondent. The superintendent maintains a close working relationship with the full-time employees and conducts all
training sessions personally, as well as all interviewing, hiring and dismissals. The superintendent is also very aware of each employee's work and is continually checking work on a routine and "exceptions" basis.

The four foremen also completed the same three item questionnaire relating to respondent's effort, but they rated only those employees under their own supervision. The foremen obviously have a good general knowledge of their employees' effort because they routinely survey the cleanliness of assigned rooms and work with the employees daily.

As shown in the reliability estimates, Table I, the foremen and superintendent effort questions were of satisfactory reliability. The estimates for other variables were of different reliabilities but were at usable levels.

D. Procedures

The questionnaire was administered to employees at a monthly group meeting called by the superintendent. The questionnaires were in envelopes with each full-time employee's name on the outside. Questionnaires were numbered so that when respondents returned them, they could be matched to the individual. Of the 88 employees present, 84 usable questionnaires were returned.

Prior to distribution of the questionnaires, employees were told of the study as being a requirement of degree completion and that their own opinions were the correct responses. Respondents were assured that data would be held confidential and that there were no right or wrong answers. The questionnaire was completed within a reasonable time and collected from all respondents.
TABLE I

VARIABLE RELIABILITY ESTIMATES

\[
    r_{kk} = \frac{k}{k-1} \left( \frac{\sum_{i=1}^{k} y_i^2 - \frac{k}{\sigma_y^2}}{\sigma_y^2} \right)
\]

where \( k = \# \) of items per variable

\( i = \) items

<table>
<thead>
<tr>
<th>Variable</th>
<th>( k )</th>
<th>( \frac{\sum_{i=1}^{k} y_i^2 - \frac{k}{\sigma_y^2}}{\sigma_y^2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort Superintendent</td>
<td>3/2</td>
<td>( \frac{4.00 - 2.37}{4.00} ) = .611</td>
</tr>
<tr>
<td>Effort Foremen</td>
<td>3/2</td>
<td>( \frac{6.72 - 3.14}{6.72} ) = .799</td>
</tr>
<tr>
<td>Effort Employee</td>
<td>3/2</td>
<td>( \frac{3.02 - 2.35}{3.02} ) = .333</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>18/17</td>
<td>( \frac{28.08 - 11.21}{28.08} ) = .636</td>
</tr>
<tr>
<td>Pay Absolute</td>
<td>3/2</td>
<td>( \frac{3.38 - 2.21}{3.38} ) = .519</td>
</tr>
<tr>
<td>Pay Comparison</td>
<td>2/1</td>
<td>( \frac{2.14 - 1.68}{2.14} ) = .430</td>
</tr>
<tr>
<td>Intrinsic Absolute</td>
<td>7/6</td>
<td>( \frac{7.82 - 3.74}{7.82} ) = .609</td>
</tr>
<tr>
<td>Intrinsic Comparison</td>
<td>7/6</td>
<td>( \frac{7.17 - 4.13}{7.17} ) = .495</td>
</tr>
<tr>
<td>Extrinsic Absolute</td>
<td>7/6</td>
<td>( \frac{7.65 - 3.51}{7.65} ) = .631</td>
</tr>
<tr>
<td>Extrinsic Comparison</td>
<td>7/6</td>
<td>( \frac{10.77 - 5.40}{10.77} ) = .582</td>
</tr>
</tbody>
</table>
The following day the effort questionnaires were distributed to the foremen and superintendent. They completed the questionnaires satisfactorily and returned them promptly. The completion of the two questionnaires at roughly the same time should reduce possibilities for bias due to time differences.
CHAPTER IV
ANALYSIS OF DATA

The four hypotheses were tested utilizing data from the questionnaires with Product Moment correlations being used as the tool for analysis.

A. Hypothesis One

The first hypothesis predicted a positive association of perceived pay to perceived effort. To test this hypothesis, the three effort measures (employees, foremen and superintendent) were correlated to the employees' perceptions of pay. As mentioned previously, the pay questions were of both absolute and comparison type with the comparison questions measuring more accurately feelings of equity.

TABLE II
CORRELATIONS OF PAY COMPARISON TO EFFORT VARIABLES

<table>
<thead>
<tr>
<th>Effort Variable</th>
<th>Correlation Coefficient</th>
<th>Significance Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort Superintendent</td>
<td>-.010</td>
<td>&gt;.922</td>
</tr>
<tr>
<td>Effort Foremen</td>
<td>.083</td>
<td>&gt;.541</td>
</tr>
<tr>
<td>Effort Employee</td>
<td>-.331</td>
<td>&lt;.003</td>
</tr>
</tbody>
</table>

N = 84
Surprisingly, correlations of the absolute pay questions to effort measures, .122, -.080, and -.303, were very similar to pay comparison correlations. This suggests that subjects may have been drawing their Other for comparison from outside of the group.

The mean pay score of 2.8 on a one to five scale, indicated that subjects felt substantially underpaid. The negative correlation of pay to employees self evaluation of effort indicated that they did not perceive reduced effort due to low absolute pay. This is in dispute of the expected findings and equity theory. This negative correlation could suggest that employees feeling underpaid work harder, but this is probably not the best evaluation.

B. Hypothesis Two

The second hypothesis was that a negative association of perceived pay inequity to perceived general job satisfaction would exist. As mentioned previously, both inequity of underpayment or overpayment should reduce satisfaction. To test this situation it was necessary that the pay scale be folded to merge both inequity situations of over and underpayment. A product moment correlation then resulted in a coefficient of -.154 for pay comparison to general satisfaction. This yielded a significance probability of >.158.

Although the results of this hypothesis were not as strong as desired, the negative correlation does seem to indicate that inequity reduces general job satisfaction. Because of the method of folding the scale, it is impossible to determine if overpayment is as strong a dissatisfier as underpayment. Another drawback was that few subjects reported perceived overpayment, thus limiting the number of conclusions
that could be drawn.

C. Hypothesis Three

The third hypothesis related a positive association of perceived intrinsic and extrinsic rewards to perceived effort. This relationship would indicate that as reward perceptions varied, effort would vary in an attempt to balance the relationship. Table III shows the correlation coefficients appropriate to hypothesis three.

TABLE III
CORRELATIONS OF INTRINSIC AND EXTRINSIC REWARDS TO EFFORT MEASURES

<table>
<thead>
<tr>
<th>Reward Variable</th>
<th>Effort Superintendent</th>
<th>Effort Foremen</th>
<th>Effort Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.099</td>
<td>-.143</td>
<td>-.069</td>
</tr>
<tr>
<td>Intrinsic</td>
<td></td>
<td>.029</td>
<td>.033</td>
</tr>
<tr>
<td>Comparison</td>
<td>-.029</td>
<td>.033</td>
<td>-.060</td>
</tr>
<tr>
<td>Extrinsic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.084</td>
<td>-.019</td>
<td>-.333*</td>
</tr>
<tr>
<td>Extrinsic</td>
<td></td>
<td>.113</td>
<td>.043</td>
</tr>
<tr>
<td>Comparison</td>
<td>.113</td>
<td>.043</td>
<td>-.306**</td>
</tr>
</tbody>
</table>

* P < .003
** P < .005

N = 84

The only noteworthy significance probabilities were extrinsic absolute to effort employee and extrinsic comparison to effort employee
with levels of $<.003$ and $<.005$ respectively. The absence of significant correlations throughout the effort superintendent and effort foremen variables suggests that rewards have little if any effect upon effort as observed by others. These more objective effort measures follow the results of hypothesis one that indicate employees' reward perceptions have little effect upon overt effort. Overall, the results were in opposition of expected findings.

D. Hypothesis Four

The fourth hypothesis was that there is a positive association of perceived intrinsic and extrinsic rewards to perceived general job satisfaction. The comparison of intrinsic and extrinsic rewards to Other are measured more accurately by comparison questions than by absolute questions. If Person feels underrewarded, logic tells us that low satisfaction should result. If Person feels equitably overrewarded, satisfaction should be higher. Table IV shows the results of correlation analysis. (Pay is not a part of the extrinsic rewards variables.)

<table>
<thead>
<tr>
<th>Reward Variable</th>
<th>Correlation Coefficient</th>
<th>Significance Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Absolute</td>
<td>.141</td>
<td>&lt; .200</td>
</tr>
<tr>
<td>Intrinsic Comparison</td>
<td>.419</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Extrinsic Absolute</td>
<td>.377</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Extrinsic Comparison</td>
<td>.544</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

\[ N = 84 \]
Three coefficients showed a highly significant probability of positive correlation to satisfaction with the other coefficient also in the expected direction. These findings support the idea that satisfaction is greatly reduced when rewards are low or inequity exists that deprives employees of equal reward.

In summary, intrinsic and extrinsic rewards highly correlate to satisfaction. The employee perceptions of level, and especially equity of rewards, appear to have great influence upon general job satisfaction. As mentioned in the section about instruments, this questionnaire is not testing satisfaction with any specific item. The goal was to test general job satisfaction, or the entire job attitude an employee holds.

E. Other Findings

Several other correlations resulted from data analysis that were interesting, but not tied directly to any hypothesis. One result was that the pay comparison to pay absolute questions correlated as .329 with a .0003 significance probability. This can be interpreted that a high absolute level of pay perception often associated to a high perception of pay in comparison to Other's pay. For this study, with its low mean pay scores, the correlation probably is indicating that low absolute pay perception associates to low perception of pay in comparison to Other.

This seems logical at face, but may not necessarily always be the result. For instance, many executives may feel high absolute pay, but a low perception when compared to relevant Other. When future research deals with a high pay group, this question could be tested. The results
probably will vary greatly, dependent on the group being tested.

A second interesting correlation group was the effort to satisfaction coefficients. The superintendent, foremen and employee effort measures correlated to satisfaction as .05, .05 and .04 respectively. These very low correlations seem to confirm that satisfaction has little effect on effort. The justification for desiring increased employee satisfaction should then center upon moral obligations and reduced turnover rather than performance increases.

Another very interesting result of the analysis was the intrinsic and extrinsic reward variables correlations. Table V lists the correlations, all of which register a .01 or smaller significance probability with the exceptions of intrinsic comparison to pay absolute and intrinsic absolute to pay comparison.

### TABLE V

**CORRELATION COEFFICIENTS OF INTRINSIC AND EXTRINSIC VARIABLES**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Pay Absolute</th>
<th>Pay Comparison</th>
<th>Extrinsic Comparison</th>
<th>Extrinsic Absolute</th>
<th>Intrinsic Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Absolute</td>
<td>.328*</td>
<td>.139</td>
<td>.434*</td>
<td>.472*</td>
<td>.511*</td>
</tr>
<tr>
<td>Intrinsic Comparison</td>
<td>.128</td>
<td>.319*</td>
<td>.574*</td>
<td>.503*</td>
<td>---</td>
</tr>
<tr>
<td>Extrinsic Absolute</td>
<td>.284*</td>
<td>.388*</td>
<td>.721*</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Extrinsic Comparison</td>
<td>.365*</td>
<td>.373*</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

*p < .01

N = 84
These results indicate that given a perception of absolute reward level, the employee will closely associate to that perception when making comparisons to Other. As in the pay situation, high absolute reward perception associated to high comparison reward perception. Again, the situation can greatly affect this finding and it could be the reverse under different circumstances.

The correlation of intrinsic to extrinsic variables also indicates that the perceptions of these reward variables is highly interrelated. If a person feels highly rewarded intrinsically, the perceptions of extrinsic reward seem to follow. Mean scores were very close and above average for both of these variables. This may be an indication of overall job feeling, that permeates an employee's entire attitude.

Mean scores for pay were considerably lower however than for other reward variables, but pay still correlated positively and significantly. This reinforces a theory of overall job feeling, since a considerably different perception level existed and coefficients still indicated interactions.

In several cases, the results of data analysis proved to be somewhat different than the expected findings. A short discussion and summary reviews these results.
CHAPTER V

DISCUSSION AND SUMMARY

A. Discussion of Results

The data analysis as presented in Chapter IV is now used to draw several conclusions about hypotheses results.

Hypothesis one analysis, would at face value indicate that employees perceiving underpayment work harder. A second analysis might suggest however, that due to the very low significance of two pay to effort correlations, pay has little influence upon effort. The foremen and superintendent's correlations do have a greater chance of objectivity than does the employee self evaluation.

This brings up the possibility that in a pay system with very little allowance for merit, the perceptions of pay may be affected more than effort. For example, a person prone to naturally exerting great effort realizes that little merit pay is being awarded. This person continues to exert effort but with perceptions of being undercompensated. Conversely a low effort person receiving roughly equivalent pay, feels overpaid in comparison to Other. Thus for the employees' perceptions, negative correlations result. Foremen and superintendent effort evaluations show little correlation to employee pay perceptions, this reinforces the belief that effort is not dependent upon pay.

Hypothesis two results indicated that inequity of payment tends to decrease job satisfaction. Since over and underpayment inequity were
combined when folding the scale, the individual results were not available. Further research on the strength of dissatisfaction caused by overpayment as compared to underpayment would be very useful to managers.

Hypothesis three analysis indicated that intrinsic and extrinsic reward perceptions have little effect upon effort as observed by supervisors. The employee's self evaluations of effort correlated negatively to rewards. As discussed in connection with hypothesis one, this could indicate that high effort employees feel underrewarded and low effort employees overrewarded. In a large work group with very few selective rewards possible, this result seems logical. The results could be quite different in a smaller, closely supervised environment, or one with sizeable merit rewards.

Hypothesis four supported the positive association of rewards to satisfaction. It should be noted that the reward variables are measures of employee perceptions and may not be indicative of the actual situation. In this situation, it appeared that roughly equal work and rewards were present. Using a five point scale, mean scores of 3.7 for intrinsic and 3.7 for other extrinsic rewards indicated much higher perceptions of these rewards than were recorded for pay (2.8). Employees thus felt adequately rewarded in areas other than pay. The point is that employee perceptions are much more important to satisfaction than is the employer's perception. If satisfaction is a goal, increased perceptions are as important as the actual increase of rewards. Equitable distribution of rewards is probably more important than the level of absolute rewards. This is illustrated by the correlations for comparison variables being higher than correlations for absolute variables.
B. Summary

Several major conclusions may be drawn from the results of this study. One of these is that pay, intrinsic and other extrinsic rewards have little effect upon employee effort as observed by superiors. The reward levels do seem to change perceptions of absolute level and feelings of equity, but this does not appear to be associated with effort increase or decrease. Employees were simply not using effort manipulation as a form of balancing their relationships.

A second major conclusion may be drawn concerning satisfaction. As discussed in concern with hypothesis two, inequity did appear to reduce general job satisfaction. Hypothesis four supported the satisfaction to rewards relationship both on an absolute and comparison basis. Thus pay, intrinsic and other extrinsic variables did greatly influence the employees' satisfaction, but not effort.

This is consistent with another finding brought out by analysis. Satisfaction had a very low association to effort. As mentioned before, if a case is being made for higher employee rewards, the main point should not be that greater satisfaction increases performance.

The tests of reward effects on effort do not support equity theory because these rewards simply do not appear to influence effort. Rewards do seem to associate to satisfaction and thus could be used to control turnover or attendance, but not effort.
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QUESTIONNAIRE
(Completed by subjects)

Different things about your job make you feel satisfied or not satisfied. This questionnaire is part of a study and asks you to describe how you feel about your present job. Please be frank and honest, your answers are confidential. There are no right or wrong answers.

Just circle the response below each question which best describes how you feel about your present job. For example if you agree with the following statement, you would circle agree.

EXAMPLE: There are some conditions concerning my job that could be improved.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

Please circle your answers to the rest of the questions, not spending too much time on any one question. Thank you.

1. My job is like a hobby to me.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

2. My job is usually interesting enough to keep me from getting bored.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

3. It seems that my friends are more interested in their jobs.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

4. I consider my job rather unpleasant.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

5. I enjoy my work more than my leisure time.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

6. I am often bored with my job.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

7. I feel fairly well satisfied with my present job.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

8. Most of the time I have to force myself to go to work.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |

9. I am satisfied with my job for the time being.
   | Strongly Agree | Undecided | Disagree | Strongly Disagree |
   | Agree          |           |          |                  |
10. I feel that my job is no more interesting than others I could get.
   Strongly Agree Undecided Disagree Strongly Agree

11. I definitely dislike my job.
   Strongly Agree Undecided Disagree Strongly Disagree

12. I feel that I am happier in my work than most other people.
   Strongly Agree Undecided Disagree Strongly Disagree

13. Most days I am enthusiastic about my work.
   Strongly Agree Undecided Disagree Strongly Disagree

14. Each day of work seems like it will never end.
   Strongly Agree Undecided Disagree Strongly Disagree

15. I like my job better than the average worker does.
   Strongly Agree Undecided Disagree Strongly Disagree

16. My job is pretty uninteresting.
   Strongly Agree Undecided Disagree Strongly Disagree

17. I find real enjoyment in my work.
   Strongly Agree Undecided Disagree Strongly Disagree

18. I am disappointed that I ever took this job.
   Strongly Agree Undecided Disagree Strongly Disagree

19. I am paid about right for the work I do.
   Strongly Agree Undecided Disagree Strongly Disagree

20. I have as good a chance as anyone to make use of my abilities.
   Strongly Agree Undecided Disagree Strongly Disagree

21. My job gives me a chance of advancement.
   Strongly Agree Undecided Disagree Strongly Disagree

22. I can see the results of my work.
   Strongly Agree Undecided Disagree Strongly Disagree
23. Policies and practices toward employees are administered unequally.
   Strongly Agree Undecided Disagree Strongly Agree

24. I work much harder at my job than other people do.
   Strongly Agree Undecided Disagree Strongly Agree

25. Other people have a better chance than I of trying their own job methods.
   Strongly Agree Undecided Disagree Strongly Agree

26. It's noticed when I do a good job.
   Strongly Agree Undecided Disagree Strongly Agree

27. I receive a chance to work by myself.
   Strongly Agree Undecided Disagree Strongly Agree

28. My job provides for steadier employment than most other jobs.
   Strongly Agree Undecided Disagree Strongly Agree

29. I am overpaid for the amount of work I do.
   Strongly Agree Undecided Disagree Strongly Agree

30. I do not have as much freedom as other people to use my own judgment.
   Strongly Agree Undecided Disagree Strongly Agree

31. My boss treats me well.
   Strongly Agree Undecided Disagree Strongly Agree

32. My job gives me a chance to help people.
   Strongly Agree Undecided Disagree Strongly Agree

33. My boss helps me less than he helps others when there is a hard problem.
   Strongly Agree Undecided Disagree Strongly Agree

34. If I tried harder I could do more work.
   Strongly Agree Undecided Disagree Strongly Agree

35. My pay is too low, compared to other workers.
   Strongly Agree Undecided Disagree Strongly Agree
36. My job does not have as much variety as most jobs.
   Strongly Agree Undecided Disagree Strongly Agree

37. My working conditions are favorable.
   Strongly Agree Undecided Disagree Strongly Agree

38. I have a good chance to do the kind of work that I do best.
   Strongly Agree Undecided Disagree Strongly Agree

39. My job gives me a better chance of getting ahead than other jobs.
   Strongly Agree Undecided Disagree Strongly Agree

40. Compared to similar jobs in other companies, my pay is higher.
   Strongly Agree Undecided Disagree Strongly Agree

41. The results of the work I do are easier to see than in many other jobs.
   Strongly Agree Undecided Disagree Strongly Agree

42. The policies and practices of this job are good.
   Strongly Agree Undecided Disagree Strongly Agree

43. I am able to try some of my own ideas.
   Strongly Agree Undecided Disagree Strongly Agree

44. I do not receive as much recognition as others for the same amount of work.
   Strongly Agree Undecided Disagree Strongly Agree

45. A lot of effort goes into my work.
   Strongly Agree Undecided Disagree Strongly Agree

46. I have a better chance than other people do to work alone on the job.
   Strongly Agree Undecided Disagree Strongly Agree

47. My job provides for a secure future.
   Strongly Agree Undecided Disagree Strongly Agree

48. I have a chance to make decisions on my own.
   Strongly Agree Undecided Disagree Strongly Agree
49. My boss treats each employee the same.
   | Strongly Agree | Undecided | Disagree | Strongly Agree | Disagree |

50. For the type of work I do, my wages are too low.
   | Strongly Agree | Undecided | Disagree | Strongly Agree | Disagree |

51. My job allows a better than average chance to be of service to others.
   | Strongly Agree | Undecided | Disagree | Strongly Agree | Disagree |

52. I receive help when I have a problem on the job.
   | Strongly Agree | Undecided | Disagree | Strongly Agree | Disagree |

53. I have a chance to do different things from time to time.
   | Strongly Agree | Undecided | Disagree | Strongly Agree | Disagree |

54. I have more pleasant working conditions than most people.
   | Strongly Agree | Undecided | Disagree | Strongly Agree | Disagree |
QUESTIONNAIRE  
(Completed by superintendent and foremen)  

Please write in SA for strongly agree, A for agree, U for undecided, D for disagree or SD for strongly disagree, as the following three questions pertain to the employees you supervise. Thank you.

| Question 1: He/she works harder at his/her job than the average person does. |
|-----------------------------|-------------|-----------|--------|-------------|---------------|
| Strongly Agree             | Agree       | Undecided | Disagree | Strongly Disagree |

| Question 2: If he/she tried harder he/she could do more work. |
|-----------------------------|-------------|-----------|--------|------------------|
| Strongly Agree             | Agree       | Undecided | Disagree | Strongly Disagree |

| Question 3: A lot of effort goes into his/her work. |
|-----------------------------|-------------|-----------|--------|------------------|
| Strongly Agree             | Agree       | Undecided | Disagree | Strongly Disagree |

Thank you.

Note: Listings of appropriate employees' names with space for answers accompanied this form.
VITA

John Lee Palovik

Candidate for the Degree of

Master of Business Administration

Report: THE RELATIONSHIP OF REWARD AND OTHER EQUITY FACTORS TO EMPLOYEE EFFORT AND SATISFACTION

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Biographical:

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