DEVELOPMENTS IN THE FORMALIZATION AND VERIFICATION OF THE PRINCIPLE OF DISTRIBUTIVE JUSTICE

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ABSTRACT

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by Girard E. Krebs

The research reported here is based on the work of George Homans. The subject matter is the principle of distributive justice as formulated by Homans. Since this research is only preliminary in nature, several other shortcomings besides concern with only investment and profit are inherent. For example, in attempting to delineate suitable criteria of investment and profit, it was believed that authority and ability are at least manifestations of investment, and cash award is a manifestation of profit. Obvious here is the probability that authority and ability may be forms of investment and that cash award may be a form of profit, but these likely do not constitute all the investments and profits in an economic or social exchange. The psychological investments and profits are not even considered.

A survey type research design was used and is justified by the fact that the research was directed at learning the normative nature of the principle of distributive justice. The results obtained in the survey were largely inconsistent with expectations in that 88 percent of the respondents (n=485) to one of eight different hypothetical situations of varying degrees of ability and authority would split the profits of the exchange evenly -- that is, 50-50. This large percentage of 50-50 responses is attributed to the nature of the situations formulated and used

in the research design. The thought is that the situations lacked real significance and personal commitment on the part of the people asked to project themselves into the various situations.

Of the 12 percent of the respondents who did not indicate an even profit split (i.e. indicated some split other than 50-50), results support the general hypothesis that the manner in which total profits in an exchange situation are split will reflect the investment pattern of the exchange; the more a participant has invested in the exchange, the greater will be his profit expectations.

DEVELOPMENTS IN THE FORMALIZATION AND VERIFICATION OF THE PRINCIPLE OF DISTRIBUTIVE JUSTICE

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As in all scientific investigation, the work which follows stems from the work of several other men. Reference will be made to these men and to their work where appropriate and where specific sources are recalled. However, the ideas and combinations of ideas, which stimulated this work have their origins in places and people other than those specifically referred to. I am indebted to Professors Santo F. Camilleri and Thomas L. Conner, both of Michigan State University, and to Wayne Olin, a fellow graduate student, for their suggestions and for ideas gained in discussions with them. They are, however, in no way responsible for any errors of thought or mechanics found herein.

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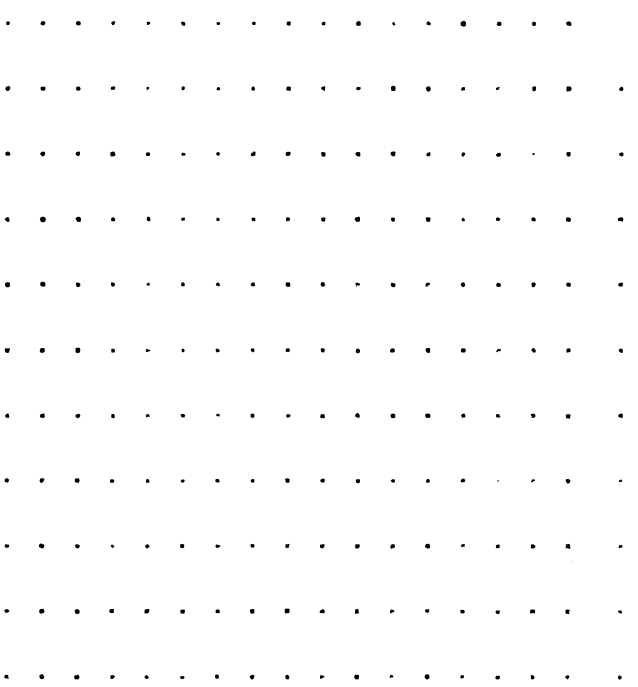

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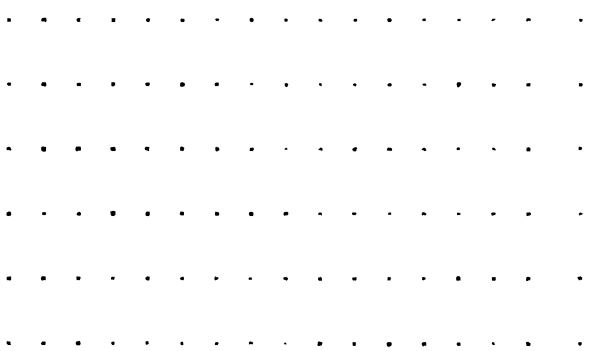

INTRODUCTION

The basis for this research is George Homans' principle of distributive justice.[1] This principle states that:

> A man in an exchange relation with another will expect that the rewards of each man be proportional to his costs -- the greater the rewards, the greater the costs -- and that the net rewards, or profits, of each man be proportional to his investments -- the greater the investments, the greater the profit.[2]

Homans' work is an attempt to explicate his thinking on what he calls the social economics of human interaction. He specifically states that his propositions are derived from the propositions of behavioral psychology and elementary economics. He reminds us that behavioral psychology deals largely with non-social experimental studies of the actions and reactions of organisms; elementary economics deals with men in social situations, for surely the economic market place is a social one. From apples and dollars, physical goods and money, elementary economics needs to be extrapolated to apply to the exchange in intangible services for social esteem in a market place that is imperfect.[3] What results from this process of extrapolation is what Homans calls the social economics of an exchange.

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[1]George C. Homans, Social Behavior: Its Elementary Forms. (New York: Harcourt, Brace and World, Inc., 1961).

[2]Homans, p. 75.

[3]Homans, p. 12.

Since this research is preliminary in nature, the concern here is with just a fraction of those concepts with which Homans is concerned. The factors of interest in this research are investments and profits. Homans does not satisfactorily define what he means when he speaks of investments or profits. The most we can learn from him is from isolated bits and pieces of information. For instance, he speaks of investments as being determined by the many features of the past histories or backgrounds of the people in an exchange,[4] and indicates that some of a man's background characteristics increase in value with the time and ability he has "put in" in various situations.[5] The implication here is that, since investments are determined by these background characteristics, as the characteristics increase in value, so do the investments increase in value.

Homans does give an explicit definition of profit, but in terms of two other variables. For him, profit is equal to reward less cost.[6] Of rewards, Homans makes the statement that the heart of the psychology used here is not a stimulus and a response but an operant and a reinforcer (an activity and a reward)[7]. He talks about positive and negative reinforcers,[8] and later on he mentions

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[4]Homans, pp. 74-5.

[5]Homans, p. 236.

[6]Homans, p. 61.

[7]Homans, p. 22.

[8]Homans, p. 24.

escape from or avoidance of punishment as being rewarding.[9] Still later, the cost of an activity is defined as the value of the reward obtained through a unit of an alternative activity, forgone in emitting the given one.[10]

Generally speaking, Homans' work is permeated with such ambiguities, not only in his definitions or lack thereof, but in his explications as well. But of singular importance is the possibility that he has the makings of a model for social interaction. One could devote much time to the refinement of Homans' original conceptions, and this research is meant as a start in that direction.

The beginning here is an initial thrust into the normative nature of the principle of distributive justice in which the relevant variables are investments and profits. The research involves a survey design in which respondents were asked to react to one of eight different hypothetical situations involving different combinations of presupposed manifestations of investments and profits (see APPENDIX A).

The general plan of this thesis is as follows: First is a formalization of the relationship Homans thinks exists between investments and profit. A thorough and systematic screening of Homans' work was performed to sift out those statements relevant to investments and profit; these were then formalized and operated upon algebraically. This process yields a new relation-

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[9]Homans, pp. 57-8.

[10]Homans, p. 60.

ship -- one which to my knowledge Homans does not indicate in his work.

Focus is then shifted to the development of the implications of this new relationship. In order to pursue this matter, it is necessary to operationalize investment and profit. This operationalization is elaborated and justified; then hypotheses stemming from the operationalization and the formalization are presented. That is, the analysis is taken a step further. Assuming that the principle of distributive justice does in fact describe social situations within a reasonable degree of accuracy, an attempt was made to determine how much of the total differential in concrete rewards to people in a social exchange is attributable to differentials of investments in some instances, and to additive investments in others. From this point, the rationale for the research design, and the research itself are explicated.

CHAPTER ONE

A Partial Formalization of the Principle of Distributive Justice

Having studied Homans' ideas regarding rewards, costs, profits, investments, and rates of investment, I became interested in the possibility of formalizing the relationships which exist among these elements of exchange. Although it is possible to treat these variables rigorously and to establish a number of mathematical relationships among them, the concern in this research is with profits and investments. Before beginning this treatment, I acknowledge the possibility that by treating rewards and costs only peripherally in this exercise I run the risk of error from omitting or treating as irrelevant, what may be truly relevant variables. Investments and profits were chosen as a beginning because they seem most easy to operationalize, at least in part.

In this section of this thesis several of Homans' verbalized statements regarding the relationships among various elements of exchange are reviewed, symbolized, and then operated upon mathematically. In the process, some new relationships are established -- ones which are not expressed by Homans -- as are rigorously derived statements which demonstrate the consistency of these interpretations of Homans' conceptions.

The reader will notice immediately that "should be" statements by Homans are here transformed into "is" or "will be" statements. Homans' "should be" statements follow from the proviso "if justice is to obtain." Use of "is" or "will be" is based on the assumption that distributive justice is operational. One need not accept this

assumption; in fact, actual research may be its undoing.

In the section called "Proportionality of Profits and Investments,"[11] Homans makes the following statements:

> •••Distributive justice demands not absolute equality of profits, but equality of profits as a rate of return on investments.
>
> SYMBOLIZED: $P_p = r_p I_p$, $P_o = r_o I_o$.[12]
>
> •••A man in an exchange relation with another will expect the profits of each to be directly proportional to his investment, •••.
>
> SYMBOLIZED: $\frac{P_p}{I_p} = k_1$, $\frac{P_o}{I_o} = k_2$.
>
> •••If the investment of two men, or two groups, are equal, their profits should be equal, •••.
>
> SYMBOLIZED: if $I_p = I_o$, then $P_p = P_o$.
>
> •••If their investments are unequal, the one with the greater investments should get the greater profit.
>
> SYMBOLIZED: if $I_p \quad I_o$, then $P_p \quad P_o$, and
>
> if $I_p \quad I_o$, then $P_p \quad P_o$.
>
> Men certainly assess their own investments and income, but to make the rule of justice work they must assess those of others <u>on the same scale</u> (emphasis mine).

Given the above information, it can be demonstrated that $\frac{P_p}{I_p} = r_p$, r_p being the rate of investment under consideration. Using an

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[11] Homans, pp. 242-7.

[12] In this presentation, I is used for investments, P for profits, and r for rate of investment. The lower case subscript p designates Person, and o designates Other. Thus, I_p should be read, "the investments of Person," and P_o should be read, "the profits of Other," and so on.

economic analogy, suppose profits are 10 units and investment is 100 units. Then the rate of investment is $\frac{1}{10}$ or 10 percent. In the analogy used here, for every one unit of profit there are ten units of investment. The scale here is 1 to 10. If the subjective assessment of an investment situation is on a 1 to 10 scale, then the assessment of the investment of others, according to Homans, must be 1 to 10 as well. Because, to make the rule of distributive justice work, the investment and income of all members of an exchange must be measured on the same scale. This scale turns out to be the rate of investment. Then, $r_p = r_o$. That is, r_p must be subjectively equal to r_o, assuming that distributive justice is to prevail.

Going one step further, if $r_p = r_o$, then from the algebraic manipulation resulting in $r_p = \frac{P_p}{I_p}$, and $r_o = \frac{P_o}{I_o}$,

$$\frac{P_p}{I_p} = \frac{P_o}{I_o}.$$

Stated formally:

> In an exchange, the relationship of one man's profits to his investments lies in the same ratio as the relationship of a second man's profits to his investments.

By manipulating this formalized principle, we can determine that

$$\frac{P_p}{P_o} = \frac{I_p}{I_o}.$$

Stated formally:

> The profits of two people in an exchange lie in the same ratio as their investments.

This formulation is submitted as a basic principle derived from Homans' work in the principle of distributive justice. The task now is to test the validity of the structure of the relations which Homans presents and the relationships derived from his work.

If empirical research denies these relationships, then one or more of several things is wrong:

1. There may be no principle of distributive justice.
2. There may be a principle of distributive justice, but this interpretation may be incorrect, the statement of the principle may be incorrect, or both.
3. There may be more than one manifestation of the principle of distributive justice.

CHAPTER TWO

Investments and Profits in a Task Situation

A basic assumption in this research is that ability and authority are forms of investment and that money is a form of profit. An elaboration on why these assumptions were made is in order at this point. Homans' discussion of social behavior is permeated with examples of studies in which one or both of these factors (ability and authority) are relevant. As a pointed example, the reader is referred to Homans' discussion of the rewards and costs of consultation in a department of a local branch of a federal agency.[13] The original report of the research appeared in The Dynamics of Bureaucracy,[14] but is analyzed by Homans in terms of the social economics of the situation. Homans' analysis suggests that ability can be a factor in determining authority. The idea that these factors are investments follows naturally from Homans' analysis.

Another source of the idea that ability and authority are forms of investment, and that money is a form of profit, is observation of Western civilization in general and United States society in particular. One needs only to reflect on the pattern of life in this country to understand why ability and authority are adduced as forms of investment, and money as a form of profit. This

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[13]Homans, pp. 360-371.

[14]Peter M. Blau, The Dynamics of Bureaucracy. (Chicago: University of Chicago Press, 1955).

society and culture are, as is evident in Homans' analysis, permeated with reward for achievement, striving for self-enhancement, climbing of the social and economic ladders, and so on.

A final source of these perceptions is the research in which I have been involved during the past year. Santo F. Camilleri of the Department of Sociology at Michigan State University has formulated a gain-loss model of decision making. He has introduced the ability and authority factors into an experimental laboratory situation from which he hopes to arrive at some probability figures on decision making.

The "givens" in Camilleri's work are:

1. a task situation in which two individuals are involved
2. individual A perceives himself as having high or low ability, and perceives individual B as likewise having high or low ability in some dyadic combination
3. one of these two people has authority for final decisions.

That is, both people may perceive themselves and their partners in the task as having high ability. Or one person may be perceived of as having high ability and the other as having low ability. And either of these people may have authority over the other. In constructing such a situation in the laboratory, Camilleri is attempting to establish probability statements concerning the types of decisions which will be made by participants in the various conditions if they disagree with each other on the proper resolution of the task. Much of my thinking, and the actual research design used in this study, are attributable to having worked as a research assistant with Professor Camilleri during this past year.

A note on the Notation System:

1. The assignment of the designation A to Person and B to Other is arbitrary. This has no significance other than to allow symbolic representation. Person could be designated B and Other designated A.

2. Authority -- If A and B have unequal authority, i.e., one or the other is in a position of authority vis-à-vis the other, one letter designate is placed above the other. For example, the notation $\overset{A}{B}$ designates A in an authority relation over B.

3. Ability -- If A and B have <u>equal</u> ability, and that ability is high, the notations A^+ and B^+ are used. The notation A^+, B^- would mean that A has high ability while B has low ability. This is obviously a condition of unequal ability.

4. Authority and Ability -- Combining the notation systems above, an extended notation system is developed. To illustrate, the notation $\overset{A^-}{B^+}$ (A above B; A with one "minus" superscript and B with one "plus" superscript) means that A has low ability, B has high ability, and <u>A has authority over B</u>. Any combination of ability and authority desired in a study can be "created," assuming, of course, that communication with the respondents is effective, and that they perceive themselves in the appropriate states.

Although any combination is possible, a $\overset{B}{A}$ condition is not used because it is meaningless in this context. Recall that the assignment of A to Person and B to Other is arbitrary. B could be used to designate Person; so either subject can be designated either A or B.

Regarding the factors of investments and profits, it would be at most very difficult, and at least very ambitious, to classify

the psychological manifestations of any of these four factors. Thibaut and Kelley[15] assume that psychological rewards can be measured, and that rewards of different modal gratifications can be reduced to a single psychological scale. Likewise, costs are assumed measurable on a common psychological scale, and in addition, are additive in their effect. The measurement and scaling alluded to in this paragraph lie beyond the scope of this research. What I shall attempt to show is the reflection of these psychological manifestations in a concretely measurable differential split in the monetary profits gained from performance in a task situation carried out within a framework of concerted team effort.

An assumption upon which this phase of this inquiry lies is that both ability and authority are forms of investment in the exchange extant in the research design. I do not say, or mean to imply, that authority and ability are the only investments; I say only that they are the relevant investments. Other factors are either not important at all or form a separate and independent system. The assumption is that there are no other relevant factors which will systematically upset the profit split.

Another assumption which arises at this point is that the money which the subjects gain from this exchange is a profit from it. Again, the money involved is not the sole profit; the point is that this money is the relevant profit. In addition, since Homans[16]

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[15]John W. Thibaut and Harold H. Kelley, The Social Psychology of Groups. (New York: John Wiley & Sons, Inc., 1959).

[16]Homans, pp. 97, 241, 244.

says that profits equal rewards minus costs and that costs are equal to rewards forgone, part or all of the money may be offsetting part or all of the costs of the exchange, leaving none, or only some of the money as profit. In other words, it may be incorrect to call all the money profit. It may be more nearly correct to call this money reward. This point, however, will not be of major concern in this research.

Having related the terms ability and authority to investments, and money to profits, I can now incorporate Homans' thinking into the analysis.

> General Hypothesis: The manner in which total profits in an exchange situation are split will reflect the investment pattern of the exchange; the more a participant has invested in the exchange, the greater will be his profits.

In a dyadic task situation (such as the one used in this research design) in which two subjects have equal ability and equal authority, the profits should be split equally. If authority were equal or not a factor, but ability differed in the two subjects, that subject with the greater ability in performing a task should reap a larger proportion of the profits. If a subject were in a position such that he had greater ability to perform the task and had authority in the task situation, he should reap an even higher proportion of the profits because of increased investments.

To simplify this analysis, two of the authority-ability relationships which will be used in this research have been selected for explication. They are $\begin{matrix} A^{+} \\ B^{-} \end{matrix}$ and $\begin{matrix} A^{-} \\ B^{+} \end{matrix}$. In the first case, A has high ability and B has low ability. In addition,

A has the authority for the final decision. In the second case, A has low ability and authority for the final decision while B has high ability, but has no authority for the final decision.

With the aid of a sort of four fold table for reference, and with differential split of profits as the result of the relationships extant in this table, several specific hypotheses are offered:

TABLE 1

I A^+	II A^-
IV B^-	III B^+

Hypothesis I: Of the four possible combinations of authority and ability, a subject in condition I (cell I) will reap the highest percentage of total rewards. That is, a subject in condition I has high ability invested and is in the position of authority, and will therefore reap the greatest profit.

Hypothesis II: Of the four possible combinations of authority and ability, a subject in condition IV (cell IV) will reap the lowest percentage of total rewards. That is, a subject in condition IV has neither ability nor authority invested in the exchange, and will therefore reap the least profit.

Derivation I (From Hypotheses I and II): Differential investments of authority and ability of subjects in conditions I and IV will result in the widest differential percentage split of total profits of any of the possible comparisons of conditions. Symbolically, and in relative profits, $A^+ > B^-$.

Hypothesis III: A subject in condition I (cell I) will reap

greater profits than a subject in condition II (cell II).

Symbolically, $A^+ > A^-$.

This will be so because, although each subject has the authority for final decisions, the subject in condition I has high ability while the subject in condition II does not. The subject in condition I has more invested in the exchange, and will therefore reap greater profits.

Hypothesis IV: A subject in condition I (cell I) will reap greater profits than a subject in condition III (cell III).

Symbolically, $A^+ > B^+$.

This will be so because the two subjects will have equal (high) ability invested in the exchange, but the subject in condition I also has authority for final decisions while the subject in condition III does not.

Hypothesis V: A subject in condition II (cell II) will reap greater profits than a subject in condition IV (cell IV).

Symbolically, $A^- > B^-$.

This is so because the two subjects will have equal (low) ability invested in the exchange, but the subject in condition II has authority for final decisions while the subject in condition IV does not.

Hypothesis VI: A subject in condition III (cell III) will reap greater profits than a subject in condition IV (cell IV).

Symbolically, $B^+ > B^-$.

This will be so because the two subjects have equal authority for final decisions (i.e., no authority), but the subject in condition III has high ability invested in the exchange while the subject in condition IV has low ability investments.

The one differential profit split relationship which cannot be derived from the analysis is that between A^- and B^+. This relationship is problematic because one of the subjects (A^-) has only authority for final decisions invested in the exchange, while the other (B^+) has only high ability invested. The problem becomes one of deciding on some grounds whether authority or ability is the greater investment.

On the basis of research by Jackson[17] it seems that:

Hypothesis VII: A subject in condition III (cell III) with reap greater profits than a subject in condition II (cell II).

Symbolically, $B^+ > A^-$.

This hypothesis is admittedly the weakest of the several which have been made. None the less, it is logically consistent with the other hypotheses formulated, a discussion of which will follow a presentation of the basis for formulating it.

Jackson addressed the problem of status consistency, and stress arising from status inconsistency. In this study of the stressful impact of status inconsistency on the individual, he suggests that the relative positions of achieved and ascribed status ranks influence the way an individual defines his situation. More specifically, Jackson found that disequilibration (in Kimberly's[18] terms) perceived by the individual as having resulted

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[17]Elton F. Jackson, "Status Consistency and Symptoms of Stress," American Sociological Review, 27(4):(1962), 469-480.

[18]James C. Kimberly, "A Theory of Status Equilibration," in Berger, Zelditch and Anderson (eds), Sociological Theories in Progress. (Boston: Houghton-Mifflin Co., 1966). Also as Technical Report #6, Office of Naval Research, Contract Nonr 1181 (11), Project NR 179-740, (not dated).

from his own actions cause stress, whereas disequilibration perceived as having resulted from agents or situations beyond his control do not cause this stress.

Because the selection of the authority figure in the proposed study should be perceived by the subjects as arbitrary, the authority element should not be weighted as heavily as the ability element; the ability element, should be perceived as directly resultant from the subject's own actions. Therefore, Hypothesis VII is based on Jackson's findings.

Some hypothetical figures are added to TABLE 1 which may be used for demonstration only. These figures are used to represent one possible differential percentage split of the profits, and also to demonstrate the logical consistency of all the possible relationships which exist among the four conditions.

TABLE 2[a]

A^+		A^-
	70	40
	30	60
B^-		B^+

[a]Figures clustered about the intersection of the cell division lines are hypothetical differential percentage splits of profits from the exchange. Recall that A^+ and B^- are in exchange, as are A^- and B^+. Therefore, vertical percentages must add to 100 percent. A^+ and A^-, as well as B^- and B^+ are not in exchange; horizontal percentages therefore need not add to 100 percent.

Collecting all the differential percentages of profit relationships among the various conditions, the following hypotheses have been generated:

1. $A^+ > A^-$
2. $A^+ > B^+$
3. $A^+ > B^-$
4. $A^- > B^-$
5. $B^+ > A^-$
6. $B^+ > B^-$.

Let us look now at the logical structure of these relationships. Hypothesis VII (the weak one) states that $B^+ > A^-$. Hypothesis V states that $A^- > B^-$. Using the logical property of transitivity, if $B^+ > A^-$, and $A^- > B^-$, then $B^+ > B^-$. Thus, using the logical structure of the property of transitivity, Hypothesis VI is derived. This operation is further support for the hypothesis that B^+ could be greater than A^-.

However, the logical structure of the relationships would not be disturbed if $A^- = B^+$, or even if $A^- > B^+$ within specified limits. The logical structure will hold provided that $A^+ > B^+$, $A^- > B^-$, $A^+ > A^-$, and $B^+ > B^-$. If, for example, the differential profits percentage split between A^+ and B^- were 70 - 30, A^- could range from any percentage greater than 30 to one less than 70. That is, $30 < A^- < 70$. Similarly, $30 < B^+ < 70$. As long as these conditions were met, Hypotheses I through VI could be valid. Bringing this last point to light is, however, not sufficient to prompt the withdrawal of Hypothesis VII.

If one wishes a further check on the logical validity of the hypotheses presented, it is not difficult to establish the following relationships:

1. $A^+ > A^- > B^-$

2. $A^+ > B^+ > B^-$

3. $A^+ > B^+ > A^-$

4. $B^+ > A^- > B^-$

Finally, 5. $A^+ > B^+ > A^- > B^-$.

An analysis of other important possible relationships which exist, or could exist among people who occupy the various positions thus far delineated vis-à-vis a split of any tangible profit intended from some outside source now seems germaine. What was done in the immediately preceding discussion was an analysis of the relationships expected in a situation in which there were two sets of two people in the actual exchange. Specifically, the exchange situations were $\begin{matrix} A^+ \\ B^- \end{matrix}$ and $\begin{matrix} A^- \\ B^+ \end{matrix}$. The hypotheses are that $A^+ > B^-$ and that $B^+ > A^-$. Beyond this, the relationships were analyzed across group, or exchange, lines. That is, it was further hypothesized that $A^+ > B^+$, $A^- > B^-$, $A^+ > A^-$, and $B^+ > B^-$.

Upon a little reflection, one should easily see the danger in attempting the cross-ordering of these relationships. The simple fact that A^+ is <u>not</u> in actual exchange with B^+, B^+ is <u>not</u> in exchange with B^-, and so on, is a factor which has not been reckoned with suitably in the foregoing analysis. The purpose here is to deal with this shortcoming.

The cross-ordering of these relationships is attempted by analyzing what would be expected if the particular situations in which people in exchange may find themselves were reshuffled. In this manner, the relationships which should exist in the following exchanges can be inspected: 1) $\begin{matrix} A^+ \\ B^+ \end{matrix}$; and 2) $\begin{matrix} A^- \\ B^- \end{matrix}$. Now there are four exchange situations which we may look at -- namely, the two

just presented and the two analyzed in the preceding section, i.e., $\begin{matrix} A^+ \\ B^- \end{matrix}$ and $\begin{matrix} A^- \\ B^+ \end{matrix}$.

In all four of the cases presented thus far, the person occupying position A has authority for final decisions over the person occupying position B. In the comparative analysis of these four exchange situations, authority is held constant, relatively speaking, ability is the independent variable, and differential profit split is the dependent variable. In two instances ability is equal; however it is low within one of these cases and high within the other. Within the other two instances, ability is unequal with the person in authority having high ability in one case and the person in authority having low ability in the other case. In each of these latter two situations, the exchange partner has low ability and no authority, and high ability and no authority, respectively.

Comments have been made on, and hypotheses stated concerning the $\begin{matrix} A^+ \\ B^- \end{matrix}$ and $\begin{matrix} A^- \\ B^+ \end{matrix}$ exchanges. Hypotheses state that in both exchanges there will be a differential split of profits accruing from the exchange, and that the order will be $A^+ > B^-$ and $B^+ > A^-$. In addition to the argument already presented for the $B^+ > A^-$ hypothesis, it is also true that in the exchange incorporated into the major research design, A^- has the prerogative of drawing upon the "ability" of B^+. A^- learns what B^+ thinks is the correct decision, and A^- therefore has the "ability" of B^+ at his disposal. This "ability" does not belong to A^-, but A^- is free to use it. In that sense, B^+ is potentially a greater contributor to the task than is A^-, even though A^- has authority for the final decision.

No problems arise in analyzing the $\begin{matrix} A^+ \\ B^+ \end{matrix}$ and $\begin{matrix} A^- \\ B^- \end{matrix}$ exchanges. In a situation in which such exchanges exist, the following hypotheses are easily derived, assuming of course, that ability and authority are investments, that money is a profit, and that the following investment-profits proportion holds; $\frac{P_p}{I_p} = \frac{P_o}{I_o}$:

> Hypothesis VIII: Given a dyadic task performance exchange in which the two people have equal and high ability at performing the task, and in which one of these two people has the authority for final decisions, that person in the authority position will receive a greater portion of a differential profit split than will his partner.
>
> Symbolically: $A^+ > B^+$ if $\begin{matrix} A^+ \\ B^+ \end{matrix}$.
>
> Hypothesis IX: Given a dyadic exchange involving the performance of a task in which the two people have equal and low ability, and in which one of these people has the authority for final decisions, that person in the authority position will receive a greater portion of a differential profit split than will his partner.
>
> Symbolically: $A^- > B^-$ if $\begin{matrix} A^- \\ B^- \end{matrix}$.

At this point the reader should compare Hypothesis VIII with Hypothesis IV, and Hypothesis IX with Hypothesis V. The elements of the two sets of Hypotheses (IV and VIII, and V and IX) are similar. That is, Hypotheses IV and VIII state the same relationship as do Hypotheses V and IX.

Now the difficulty arises because in Hypotheses IV and V, A^+ and B^+, as well as A^- and B^- are <u>not</u> actually in exchange while they <u>are</u> in exchange in Hypotheses VIII and IX. What this means

is that in Hypothesis IV, $A^+ + B^+$ does not necessarily equal 100 percent of the total profits because the people involved are not in exchange, and are therefore not splitting the profits between themselves. This is also the case with A^- and B^- in Hypothesis V. However, in Hypothesis VIII, $A^+ + B^+$ must equal 100 percent of the total profits because these two people are in exchange and are splitting the profits between themselves. The same is true of A^- and B^- in Hypothesis IX.

Hypotheses IV and V, although stemming from the same logical grounds, differ from Hypotheses VIII and IX with respect to attempts at their verification. To verify Hypotheses IV and V, some cross-analyses of data gathered in the $\frac{A^+}{B^-}$ and $\frac{A^-}{B^+}$ exchange situations must be performed. To verify Hypotheses VIII and IX, only internal analyses in the $\frac{A^+}{B^+}$ exchange and in the $\frac{A^-}{B^-}$ exchange are necessary. Cross-analysis is not appropriate for verification of Hypotheses VIII and IX, but the results of cross-analysis of A^+ and B^-, as well as A^- and B^+ in the $\frac{A^+}{B^+}$ and $\frac{A^-}{B^-}$ exchanges may be interesting when compared with the internal analyses of A^+ and B^-, as well as the A^- and B^+ relationships in the $\frac{A^+}{B^-}$ and $\frac{A^-}{B^+}$ exchanges.

In short, the verification of the two sets of similar relationships requires two different research designs. One research design must provide for $\frac{A^+}{B^-}$ and $\frac{A^-}{B^+}$ exchanges, and the other design must provide for $\frac{A^+}{B^+}$ and $\frac{A^-}{B^-}$ exchanges. Putting all four exchanges in the same design does not alter the fact that each combination is necessary.

As a general summary, two actual exchange relationships were analyzed and their elements were ordered both internally and

across exchange boundaries. An order for the four elements in the two $\frac{A^+}{B^-}$ and $\frac{A^-}{B^-}$ exchanges was than stated. This order is $A^+ > B^+ > A^- > B^-$.

A further analysis to determine the nature of any other relationships which may be constructed from these elements was attempted. In actual exchanges, the following were added: $\frac{A^+}{B^+}$ and $\frac{A^-}{B^-}$. In the $\frac{A^+}{B^+}$ exchange, $A^+ > B^+$. Also, in the $\frac{A^-}{B^-}$ exchange, $A^- > B^-$. It is necessary to select only the $B^+ > A^-$ ordering from the $\frac{A^-}{B^+}$ exchange analyzed earlier to reach the closure already argued for, namely that $A^+ > B^+ > A^- > B^-$. But this closure is reached by analyzing actual exchange situations in this last instance, whereas that same closure is reached by internal analysis and cross-analysis in the first instance.

CHAPTER THREE

Research Design

It has been suggested, especially in research regarding prejudice, that people do not do what they say they would do were they confronted with a given situation. In a hypothetical situation, i.e., one into which an individual only projects himself, there would be less emotional involvement than one in which the individual is integrally involved. What is suggested is an emotional involvement different for each of two situations, one in which the individual occupies an objective, observational position, and the other in which the individual identifies himself hypothetically as an active participant. In the former situation, it seems the individual would make evaluationson on the basis of a subjective, self-centered perception of the situation, whereas in the latter the individual would apply the norms of his society or group.

That is, there should be, intuitively speaking, a high correlation between results obtained in implementing a hypothetical type research design and the norms of the society since the norms of society are what its members say would occur under specified conditions. The norms are manifest in the pronouncements of its individual members taken collectively, and therefore norms cannot exist unless they are internalized in sufficient numbers of the individual members of the society. This is the basis for my believing that a high correlation exists between the words of individuals and the norms of the society.

This argument is documented repeatedly by anthropological

field research. In fact, one of the earlier difficulties of anthropological research was the discrepancy between research findings in which anthropologists used informants, and research in which anthropologists became participant observers. The use of informants involved asking questions in a hypothetical or projective sense. Early anthropologists thus learned what the societally sponsored rules and norms were, but they did not report or account for variation from the rules and norms. Only when anthropologists began to realize that a variance existed did they begin to ask questions about procedure. And this led to a high awareness of and accommodation to differences between word and deed.

An individual who is immersed in a human exchange of some sort has his own self image and self interest at stake. These subjective factors may, I believe, disturb the correlation between individual word and societal norm, and effectively reduce it. What may occur is that instead of a high correlation between individual word and societal norm, we may find a lower correlation between individual deed and societal norm. The individual, having invested of himself in the exchange would, it seems, have a higher tendency to forsake the norms of the group than would one who has not literally invested of himself.

I believe that the hypotheses presented earlier in the proposal are normatively oriented. That is, Homans' conceptions and my derivations of distributive justice should be the consensus arrived at in a poll of the sufficiently socialized members of this society. Normatively speaking, the results hypothesized should obtain.

It therefore seems logical to test these hypotheses in a normative frame of reference. The argument here is that, since conceptions of distributive justice are normative and therefore hypothetical, it is most logical to test them using a research design based on hypothetical constructs. The best results (i.e., the highest correlation) should be obtained using this type of design. If a high correlation were found, strong evidence in support of the normativeness of the principle of distributive justice would be gained. Instead of assuming the normativeness of the principle of distributive justice, there would be evidence to support the normativeness of the principle. In addition, as will be pointed out, the hypotheses constructed are not as relevant to experimental research as they are to a test of the normativeness of the rules.

Later experimental research, in which the individual has subjectively invested, will probably yield a lower correlation between the deed and the norm once the norm has been established. Assuming that the principle of distributive justice can be established as normative in this society, and assuming that the correlation would drop in experimental research, we could shift the focus to the individual psychological factors and predispositions which may be the cause of the variant correlation between the words of individuals and societal norms on the one hand, and the deeds of individuals and societal norms on the other.

The logical order of research, then, is first to investigate the normativeness of the principle of distributive justice for this

society, second to test new hypotheses concerning the suspected and predicted variance between words and norms, and deeds and norms already discussed, and third to attempt to isolate and measure the psychological factors involved. The hypotheses already formulated are most directly related to the first of these three logical necessities, because they deal directly with normative expectations.

CHAPTER FOUR

Procedures

A word must be said about the questionnaires used in the actual implementation of the research (APPENDIX A). The questionnaires are designated FORM A through FORM H. There are eight questionnaires, but only four exchange relationships. Forms A and B reflect the type of situation one would find in an $\underset{B^+}{A^+}$ exchange; FORM A corresponds to the position of the A^+ individual in an $\underset{B^+}{A^+}$ exchange, and FORM B corresponds to the position of the B^+ individual in an $\underset{B^+}{A^+}$ exchange. Similarly, FORM C corresponds to the position of the A^+ individual in an $\underset{B^-}{A^+}$ exchange, and FORM D corresponds to the position of the B^- individual in an $\underset{B^-}{A^+}$ exchange, and so on (see TABLE 3).

TABLE 3

	FORM	corresponds to	POSITION	in an	EXCHANGE
1.	A		A^+		$\underset{B^+}{A^+}$
2.	B		B^+		$\underset{B^+}{A^+}$
3.	C		A^+		$\underset{B^-}{A^+}$
4.	D		B^-		$\underset{B^-}{A^+}$
5.	E		A^-		$\underset{B^+}{A^-}$
6.	F		B^+		$\underset{B^+}{A^-}$
7.	G		A^-		$\underset{B^-}{A^-}$

	FORM	corresponds to	POSITION	in an	EXCHANGE
8.	H		B^-		$\begin{matrix} A^- \\ B^- \end{matrix}$

Any considerations of the normative nature of exchange in which authority is not a factor have been eliminated from this preliminary research. That is, none of the forms used in the research corresponds to an exchange in which the participants have equal authority. The purpose here is to concentrate only on those exchanges in which both authority and ability are investments. Consideration of equal authority, which effectively removes the authority factor, can be added at a later time. This, as well as other possible considerations, will be mentioned in the section on suggestions for further research.

These questionnaires were distributed in one of the following two classes at Michigan State University on the dates and at the times indicated:

COURSE	TIME	DATE	ENROLLMENT
Behavior of Youth (Sociology 432)	7:00 P.M.	5/23/66	436.
Public Opinion and Propaganda (Sociology 451)	7:00 P.M.	5/24/66	254.

These two courses were selected for two reasons. First, the content of these courses is such that they should attract students from a wide range of major fields. In this way, I hoped to get a fairly representative sample of the people in this university community both horizontally (across major fields) and vertically (across class boundaries). Secondly, as indicated by the course enrollments, a large number of students was accessible.

Both wishes were fulfilled. Among the respondents is a wide

range of students with various majors. Although no claim is made concerning a truly representative sample, the sample included is at least much less biased than it could be. Of major concern was getting at least some sort of horizontal cross section. Across class boundaries, respondents range from the sophomore undergraduate to the Ph.D. candidate. So at least some sort of vertical sample was managed, even though no attempt was made to classify it systematically. No painstaking process was used to insure representativeness of the sample, and little classification of the data according to sex, age, class, and major was attempted. These data were collected with the thought that a more extensive analysis in which these variables would be controlled would be attempted at a later date.

The preliminary breakdown of respondents given in the following table will provide a general impression of some of the characteristics of the sample.

TABLE 4

MALE				FEMALE			
Age	Number	Class	Number	Age	Number	Class	Number
18	0	Freshman	0	18	3	Freshman	4
19	11			19	29		
20	34	Sophomore	20	20	54	Sophomore	34
21	57			21	79		
22	44	Junior	58	22	38	Junior	80
23	19			23	11		
24	10	Senior	90	24	6	Senior	91
25	9			25	7		
26	5	Graduate	48	26	1	Graduate	32
27	6			27	2		
28	5	Other	1	28	1	Other	1
29	2			30	1		
30	1			32	2		
31	2			36	1		
32	2			40	2		
33	1			42	1		
34	1			49	2		
35	2			50	1		
37	1			55	1		
38	1						
39	1						
41	1						
42	1						
47	1						
Total	217		217	Total	242		242

CHAPTER FIVE

Results and Interpretation

This section is devoted largely to a tabulation of the results obtained from the administration of the questionnaires. TABLE 5 is a very general look at the data, and should be self-explanatory.

TABLE 5

FORM

	A	B	C	D	E	F	G	H	Total
n_1[a]	52	49	56	43	54	56	56	60	426
n_2[b]	7	8	6	17	5	4	6	6	59
n_3[c]	59	57	62	60	59	60	62	66	485

[a] n_1 = number of respondents indicating a 50-50 split of the cash prize.

[b] n_2 = number of respondents indicating other than a 50-50 split of the cash prize.

[c] $n_3 = n_1 + n_2$.

TABLE 6 is an extension of TABLE 5. It lists numbers of respondents replying in certain ways, and how these replies relate to each other as expressed in decimal form.

The reader's attention is called here to the overwhelming percentage of respondents who, given the context related in the questionnaire, would split the profits 50-50, and the additional percentage who would do so specifically because the task was a team effort.

TABLE 6

FORM

	A	B	C	D	E	F	G	H	Total
n_1[a]	52	49	56	43	54	56	56	60	426
n_3[b]	59	57	62	60	59	60	62	66	485
n_4[c]	.883	.86	.904	.717	.916	.934	.903	.91	.879
n_5[d]	45	43	42	33	33	41	33	24	294
n_6[e]	.865	.878	.75	.768	.611	.732	.589	.40	.689
n_7[f]	.763	.755	.678	.55	.559	.684	.532	.394	.607

[a] n_1 = number of respondents indicating a 50-50 split of the cash prize.

[b] $n_3 = n_1 + n_2$.

[c] $n_4 = n_1/n_3$ in decimals.

[d] n_5 = number of 50-50 split respondents specifically mentioning "team effort" as a reason.

[e] $n_6 = n_5/n_1$ in decimals.

[f] $n_7 = n_5/n_3$ in decimals.

TABLE 7 is an analysis of only that data which indicate some split other than 50-50. This TABLE represents only 12.16 percent of all the data, and is obviously only a very small proportion of the total sample. The rationale for this analysis will be presented later.

In order to better understand how the totals presented in TABLE 7 were obtained, the reader is referred to APPENDIX C. In APPENDIX C are listed the other than 50-50 percentage splits and

the reasons for those differential splits. These are catagorized by FORM.

TABLE 7

		n_2[a]	n_8[b]	n_9[c]
FORM A	Self	7	475	67.86
	Other	7	225	32.14
FORM B	Self	8	263.33	32.92
	Other	8	536.66	67.08
FORM C	Self	6	426	71.00
	Other	6	173	28.83
FORM D	Self	17	465	27.35
	Other	17	1235	72.65
FORM E	Self	5	270	54.00
	Other	5	230	46.00
FORM F	Self	4	200	50.00
	Other	4	200	50.00
FORM G	Self	6	316.66	52.78
	Other	6	283.33	47.22
FORM H	Self	6	295	49.17
	Other	6	305	50.83

[a] n_2 = number of respondents indicating other than 50-50 split of the cash prize.

[b] n_8 = total of percentage splits for self and for other in each FORM (see APPENDIX C).

[c] $n_9 = n_8/n_2$ in percent. This means that of the seven respondents to questionnaire FORM A who would split the profits other than 50-50, the mean split would be 67.86 percent for self and 32.14 percent for other, and so on.

Statements 1 through 4 which follow are an extension of TABLE 7. Going back to the questionnaires used, the reader is asked to recall that in each FORM, the respondent was asked to determine a split of the profits between himself and his partner. Thus, if a respondent replied with 60-40, this meant that he would

keep 60 percent of the profits for himself, and give 40 percent of the profits to his partner.

Now, suppose that a respondent to FORM C replied with 65-35, and a respondent to FORM D replied with 25-75. It is feasible that these two respondents could actually have been in an exchange. That is, the respondent to FORM C could have been the A^+ individual in an $\begin{matrix} A^+ \\ B^- \end{matrix}$ exchange, and the respondent to FORM D could have been the B^- individual in an $\begin{matrix} A^+ \\ B^- \end{matrix}$ exchange. It is obvious that were this situation actually to arise, there would have to be some bargaining between the participants before a compatible split were determined.

	PARTICIPANT A		PARTICIPANT B	
	Self	Other	Self	Other
Split	65	35	25	75

Suppose that these two participants bargain, and decide on the following split:

	PARTICIPANT A		PARTICIPANT B	
	Self	Other	Self	Other
Split	70	30	30	70

The point being made is that the percentages of the self-other split for one participant are reversed for the other participant. The 70 percent "self" share for participant A is the same as the 70 percent "other" share for participant B.

Statements 1 through 4 are the result of this line of thinking. What I have done is add the FORM C other than 50-50 <u>self</u> responses to the FORM D other than 50-50 <u>other</u> responses, and then divide that sum by the <u>sum</u> of the number of self responses on FORM C and the number of other responses on FORM D, and so on. For

further clarification, see APPENDIX F.

1. The FORM A self - FORM B other calculation is for the A^+ individual in an $\begin{matrix} A^+ \\ B^+ \end{matrix}$ exchange, and the FORM A other - FORM B self calculation is for the B^+ individual in an $\begin{matrix} A^+ \\ B^+ \end{matrix}$ exchange. $\begin{matrix} A^+ = 67.44 \\ B^+ = 32.55 \end{matrix}$

2. The FORM C self - FORM D other calculation is for the A^+ individual in an $\begin{matrix} A^+ \\ B^- \end{matrix}$ exchange, and the FORM C other - FORM D self calculation is for the B^- individual in an $\begin{matrix} A^+ \\ B^- \end{matrix}$ exchange. $\begin{matrix} A^+ = 72.22 \\ B^- = 27.74 \end{matrix}$

3. The FORM E self - FORM F other calculation is for the A^- individual in an $\begin{matrix} A^- \\ B^+ \end{matrix}$ exchange, and the FORM E other - FORM F self calculation is for the B^+ individual in an $\begin{matrix} A^- \\ B^+ \end{matrix}$ exchange. $\begin{matrix} A^- = 52.22 \\ B^+ = 47.77 \end{matrix}$

4. The FORM G self - FORM H other calculation is for the A^- individual in an $\begin{matrix} A^- \\ B^- \end{matrix}$ exchange, and the FORM G other - FORM H self calculation is for the B^- individual in an $\begin{matrix} A^- \\ B^- \end{matrix}$ exchange. $\begin{matrix} A^- = 51.8 \\ B^- = 48.2 \end{matrix}$

There are responses to a few of the questionnaires which seem to be wholly facetious. I know that I am making a value judgment when I say this, so I have added APPENDIX D, in which I have quoted those responses. In this way, the reader can make his own judgments about these few responses. I know that I am tampering with the data but all of these calculations were done again with these few cases removed. Doing so will support a point to be made later.

All the calculations were done in two additional ways. In one, <u>all</u> the data are included -- 50-50 splits and other than 50-50 splits. In the other, <u>all</u> those data which seem facetious whether they were 50-50 or other than 50-50 splits are excluded. Following is a summary statement of all the calculations.

TABLE 8

NON 50-50 DATA	NON 50-50 DATA (Facetious responses removed)
$A^+ = 67.44$ $B^+ = 32.55$ (n = 15)	$A^+ = 65.51$ $B^+ = 34.49$ (n = 13)
$A^+ = 72.22$ $B^- = 27.74$ (n = 23)	$A^+ = 72.22$ $B^- = 27.74$ (n = 23)
$A^- = 52.22$ $B^+ = 47.77$ (n = 9)	$A^- = 46.25$ $B^+ = 53.75$ (n = 8)
$A^- = 51.8$ $B^- = 48.2$ (n = 12)	$A^- = 51.8$ $B^- = 48.2$ (n = 12)

TABLE 9

ALL DATA	ALL DATA (except facetious responses)
$A^+ = 52.26$ $B^+ = 47.74$ (n = 116)	$A^+ = 51.77$ $B^+ = 48.23$ (n = 114)
$A^+ = 54.19$ $B^- = 45.80$ (n = 122)	$A^+ = 54.19$ $B^- = 45.80$ (n = 122)
$A^- = 50.17$ $B^+ = 49.83$ (n = 119)	$A^- = 49.75$ $B^+ = 50.25$ (n = 118)
$A^- = 50.17$ $B^- = 49.83$ (n = 128)	$A^- = 50.17$ $B^- = 49.83$ (n = 127)

TABLE 10, which follows, is a four-fold arrangement of the analysis of the actual data accumulated for all other than 50-50 split responses which are relevant to the $\begin{matrix} A^+ \\ B^- \end{matrix}$ and $\begin{matrix} A^- \\ B^+ \end{matrix}$ exchanges.

TABLE 10

A^+	A^-
71.8	52
28.1	48
B^-	B^+

TABLE 11 is a four-fold arrangement of the analysis of the actual data accumulated for the other than 50-50 split responses with the facetious responses removed. As in TABLE 10, only those data relevant to the $\begin{matrix} A^+ \\ B^- \end{matrix}$ and $\begin{matrix} A^- \\ B^+ \end{matrix}$ exchanges are considered.

TABLE 11[a]

A^+	A^-
72.22	46.25
27.74	53.75
B^-	B^+

[a]Vertically placed percentages in TABLES 10 and 11 should ideally add to 100 as they do in TABLE 2. Use of the slide rule accounts for the inaccuracies.

Now, compare TABLES 10 and 11 with TABLE 2.

Interpretation of Results

The first results, and by far most important in their implications for this research, are the overwhelming numbers of respondents who replied with a 50-50 split (see APPENDIX B for a selected list of such responses.). TABLE 6 indicates not only

that a very high percentage of respondents to each FORM gave a 50-50 reply, but that across all the questionnaires (each reflecting a different situation), 426 of 485 respondents replied with a 50-50 split for a 50-50 response rate of .879. That 294 of those 426 respondents who would split 50-50 gave as their reason that the task required "team effort" has some potential implications for the principle of distributive justice.

Recall now an earlier statement made that people often act in ways different from the way they say they would act. With this statement in mind, consider these possible reasons for the extremely high percentage of 50-50 responses in this research.

There were eight rather divergent situations into which the respondents were asked to project themselves, and there are two facts which need explanation. Why did such a majority dictate a 50-50 split? The 294 of the 426 respondents who would split the profits 50-50 explicitly mentioned in their reasons the fact of "team effort." That more than 60 percent of 485 total respondents replied that they would split the profits 50-50 because the task was a "team effort" -- regardless of the situational factors -- must be considered.

There are several possible explanations for this outcome. First of all, even though this society operationalizes the free enterprise system to some extent, there is yet an undercurrent of fair play. Many of our sports (football, baseball, basketball, and hockey to name a few) are team sports. To be sure, there are many outstanding individual performers, but to say that John Unitas wins all the football games for the Baltimore Colts is just not

true. The functioning unit is the Colts, not John Unitas. When the Colts won the play-off game with the Dallas Cowboys in the National Football League last season, Mr. Unitas was out of the game with an injury. But he got his share of the profits from the game simply because he was a member of the team. So too with all the "bench warmers." The game winnings for the team were divided equally among all those men whose names were on the team roster.

As I understand it, the profits from such playoff games are split evenly to avoid the destruction of team morale and identification. If the team members were differentially rewarded, the risk of resentment would be run. As some of the respondents to this survey asked, "Who is to say which participant deserves the greater share of the split?" Since the participants (or team members) are individually involved in the taking of a share of the profits, there is no way to be certain that the assessments are being made <u>on the same scale</u>. And the more to a man's disadvantage the principle of distributive justice fails of realization, the more likely he is to display anger or resentment.[19]

The parallel between this "real world" situation (the Colts) and the hypothetical one in the survey is illuminating. The cooperative-competitive spirit permeates this society; most people in this society are enculturated to it before they reach adolescence. Is it any wonder that, in order not to violate the "team effort" context, most respondents would split the profits 50-50?

This society is then a strange admixture of competition and

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[19]Homans, p. 75.

cooperation. Competition is appropriate, even demanded, at one place and time. But cooperation and sharing are the rule at another place and time. The appropriateness of competition or cooperation is largely situational.

The situation in this research design was a team type task, and as a number of respondents replied, it required a team effort -- win, lose, or draw. The spirit was one of cooperation, and, as with the Baltimore Colts, each gets his "fair" share.

Another factor is the actual nature of the situation, objectively speaking. The respondent reads the questionnaire and learns that he would be in a quiz show type context. He would bring nothing, other than himself, to the arena, and may actually consider himself fortunate in having been selected. Whether his partner is a friend or a stranger is indeterminate. How he or his partner was placed in a position of authority for final decisions, or even why, is completely ambiguous. The task lacks seriousness of purpose; it may even imply a "fun and games" atmosphere. Also implied, through its connection with television quiz shows, is that this is a "once and done" affair. The individual "plays the game" just once with people he may never have seen before, and whom he may never see again. The duration is very short, the situation is circumstantial, and there is no real personal commitment to the task or to the other people involved. In short, the implication is that the situation is ephemeral, and as several respondents have indicated,

> Why not split it 50-50? There is so little money involved that it is hardly worth quibbling about. What is the

sense in rocking the boat? I am lucky to have won any money at all.

What has been said up to now regarding this 50-50 response pattern seems to indicate one thing: given the context of the situation into which respondents were asked to project themselves, the norm is clearly a 50-50 profit split. Does this mean, then, that the principle of distributive justice, as it has been formulated, is not valid? I think not. Several things are indicated by these results, among them the situational characteristics of the application of the principle of distributive justice. Although the results of this survey would seem to indicate otherwise, the principle of distributive justice could still hold, and it could hold in a situation such as that described in the questionnaires. That large numbers of the respondents indicated a 50-50 split of the profits does not mean that there would be no basis for a differential profit split. A 50-50 split of the monetary profits does not preclude the possibility of there being other profits which would perhaps <u>not</u> be split 50-50, profits such as the subtle types of psychological profits which may be gained from such an exchange. The sheer knowledge of superiority, either in ability, authority, or both, could have so much psychological profit that the money is inconsequential (see APPENDIX B). In addition, as revealed by several respondents, there is the possibility that a sort of social contract factor is relevant. A number of people gave as reasons for a 50-50 split the following general argument:

I agreed to enter this task as a team member. I knew

> what the rules of the game were, and knew what I was getting into before I ever agreed to participate. This other person is here under the same conditions, and he is putting in his time, just as am I.

Although this is not a direct quote from any one respondent, the point made by a number of people is that they knew about the situation, and agreed to participate under those conditions irrespective of the outcome. The implication is that the respondent has a social obligation to be aware of allthis, and to act accordingly.

In conclusion, the results obtained cannot be ignored. But these results do not refute the possibility of a principle of distributive justice as formulated, or that the principle is effective in social situations in this society.

These results indicate two important things. First, the manifestation of the principle of distributive justice seems to be situational. On one extreme, perhaps all the investments and profits of an exchange are psychological. On the other hand, perhaps these elements are largely monetary, or can be measured largely in monetary terms. However, the psychological manifestations of these elements are never wholly absent in any exchange -- even in a strictly economic exchange. Saying that the manifestations of the principle of distributive justice seem largely situational is to say that each exchange is in a context which probably lies somewhere between the strictly psychological on one extreme, and is, or could be, an admixture of psychological and economic factors on the other.

The second important thing which these results indicate is

the probable irrelevance of the vehicle for teasing out what surely must be there. The tool used was not relevant to the job which was expected to be done, and is still of interest. The situations into which the respondents were asked to project themselves were not strong enough, nor do they seem to be of a nature appropriate to bring out the results anticipated. Again, no claim is made that the results of this study are invalid, or should be ignored. But also, these results do not seem to invalidate or call into question the plausibility of the principle of distributive justice.

What is needed is a more relevant vehicle. An exchange must be formulated where the stakes -- both psychological and economic -- are higher, where the commitment is highly personal and at a higher level, and where the risk is greater. A situation is needed where the participants are really commited and where the "team effort" criterion is absent. If this could be done, a much lower percentage of 50-50 splits would seem appropriate. These criteria also tends to support what seems to have been revealed in the study actually undertaken, that is, the manifestation of the principle seems situational.

Given, and admitting, that 88 percent of the respondents indicated a 50-50 split, there is not much that can be done with any numerical analysis. The mean of 52 50-50 splits is still 50-50, and so on. In addition, if the 52 50-50 splits are added to the 7 splits which were not 50-50 (FORM A), a mean different from 50-50 is obtained, as has already been shown. But how representative is a 52.26 - 47.74 split if the reader is not informed that 88 percent of the respondents

did indicate a 50-50 split? How representative are those 52.26 - 47-74 split percentages even if the reader is informed of the nature of those data? They are not representative at all. To say that, of the 116 people who responded to FORM A or FORM B, the mean percentage of the split of the profits for an $\begin{matrix} A^+ \\ B^+ \end{matrix}$ exchange is $\begin{matrix} 52.26 \\ 47.74 \end{matrix}$ is completely misleading.

Consequently, attention is drawn only to those data which indicate a split other than 50-50 (see TABLE 8). To be sure, there is a danger in doing so. What happens is that by turning attention only to these cases, the relative comfort and safety of large numbers is lost and the dangers of a very small (in fact, too small) number of responses are assumed.

So, without being dogmatic, and without pointing to the data as strong support for the validation of any of the hypotheses, I will briefly discuss the other than 50-50 split data. In TABLE 8 one readily sees that there is some support for the hypotheses made which are relevant to these conditions. From the left hand column of TABLE 8, the only data which run counter to the hypotheses are in the $\begin{matrix} A^- \\ B^+ \end{matrix}$ exchange. That is, Hypothesis VII states that B^+ would be greater than A^-. Be aware also that "n" = 9, a very small number. In addition, if the one apparently facetious response is removed from these data (and thereby reduce "n" to 8) <u>all</u> the hypotheses would be supported. The simple presence or removal of one set of responses then determines the support or invalidation of the hypotheses, thus further demonstrating the dangers inherent in a very small "n".

There is nothing to be gained from insisting that this very

small "n" is a bona-fide and representative indication. What can be gained from a long look at the non-50-50 split data are some indicators of what could be expected were a more appropriate vehicle devised and implemented. APPENDIX C is a listing by FORM, by percentage split, and by reason, of all those non-50-50 responses. Since the "n" is relatively small, all this information is included. A study of that data is enlightening, for in the responses of these people are the rudiments of the very thoughts which prompted a serious contemplation of the principle of distributive justice. In APPENDIX C can be found, in the reasons for an other than 50-50 split, support for the contention that authority and ability can be considered as investments, and the cash award can be considered a profit. While some respondents do use these actual terms to identify the factors in the situation, and some do not, all respondents (except those giving very curt or facetious responses) use terms synonymous with ability, authority, and profits.

Were not the "n" in the non-50-50 responses so small, I would be willing to be more definitive in interpretation of the results, and more willing to take a stronger stand. For example, if just one response is removed (one which I believe facetious) from the total set of 485 collected, the results of the study are shifted from the invalidation of one of the relevant hypotheses to support for <u>all</u> relevant hypotheses. Removing that one response (see APPENDIX C) is highly questionable in the first place, and removing it will result in a reversed percentage split in the $\begin{matrix} A^- \\ B^+ \end{matrix}$ exchange in the second place even if the 50-50 split

data are included in the analysis (see TABLE 9). These simple recognitions are what force a questioning of the strength of these findings in the first place, and which indicate, in conclusion, that the results of this survey are very instructive, but are certainly not definitive or supply conclusive evidence for the support or invalidation of the principle of distributive justice.

CHAPTER SIX

Suggestions for Further Research

From this point, research could go in any number of directions. First on the agenda would be a complete re-evaluation of the research vehicle. It seems, from what has been learned from the results of the design used in this study, that the principle of distributive justice is evasive. Comments made by many of the respondents indicate that there is a lack of personal commitment, little risk, inconsequential reward, and a "fun and games" type atmosphere in the hypothetical situation used in this research. All of this is in addition to the ephemeral nature of the situation. To obtain more substantial results, these lighthearted criteria which indicate the inappropriateness of the vehicle must be replaced with criteria which would have real personal consequences.

Secondly, it seems that it would be advisable to run a pretest to determine if what was attempted had in fact been accomplished -- that is, the re-orientation of the vehicle to reduce the numbers and percentages of 50-50 responses. If this were accomplished, it would then be desirable to implement an extensive survey.

It would then be necessary, and probably informative, to compare the results of that study with the results of this study to determine what factors were instrumental in causing the differential results. This comparative analysis may yield some insights into the functioning and manifestations of the principle of distributive justice. That is, were results significantly different, and were the vehicles different, an argument for the nature of the situation as a determinant of the outcome may

possibly be established. More specifically, if the ability factor were more relevant and associated with some kind of long range developmental situation in which the individual had a real personal commitment and in which his performance had significance for his having reached a position of authority, substantiation for the thought that the manifestations of the principle of distributive justice may be at least in part situational would be obtained. From there, some extensive comparative analyses of situations could be done even if they involved the formulation of several exchange relationships of varying degrees of strength and significance.

In APPENDIX A, the reader will notice that on some of the forms a total team profit figure of $14-$17 was used, while on others, a total team profit figure of $4-$8 was used. These figures were selected to try to force the respondent to think specifically. For example, in FORM A, the respondent disagreed with his partner a large number of times, but was nonetheless the team member submitting decisions. Given: 1) that the respondent was team decision maker; 2) that he and his partner both had high ability; 3) that they often disagreed with each other; and 4) that his responses were often correct, it was hoped that he would think of himself highly, and therefore would tend to reward himself.

On the other hand, what kind of response pattern would have evolved in the other than 50-50 splits if the team had won only $5.00? Would the respondent to FORM A then think less of himself for submitting the wrong responses, and therefore split the profits

differently in an attempt to punish himself? Would some different split indicate an attempt at social control, as indicated by the last response in APPENDIX C? This same line of thinking could be applied as well to the other exchanges and the situations individually occupied.

In earlier discussion of survey research, an awareness of the inconsistency between what people say they would do were they in any given situation and what they actually do when in that situation was indicated. These considerations open a whole new range of research.

It would be no problem to adapt the research design being used in the ongoing laboratory experimental research being conducted by Santo F. Camilleri et al., to test the situational characteristics of the principle of distributive justice. This would be just one rubric under which to test the principle; others of varying degrees of strength could be formulated, and the results then comparatively analyzed.

Another interesting direction for research would be to turn more toward the psychological end of the continuum. Some progress is being made in the measurement of psychological variables. And to be sure, there are probably diverse psychological costs, investments, rewards, and profits rampant in these exchanges. What the psychological manifestations of these variables may be would be difficult to say. Identifying these variables is one problem in and of itself; measuring them is an altogether different matter. It would be problematic enough to identify these variables, psychologically speaking, let alone try to obtain

approximations of their strength or magnitude. Never the less, the subjective psychology of exchange remains as one possible avenue for the extension of this research.

The research could also be extended vertically, by adding a third, fourth, or more members to the exchange, and horizontally, by adding or considering more variables.[20] For example, equal authority could be incorporated into the design to expand it horizontally.

Another horizontal type consideration would be to include and consider average ability. In the research implemented, and that suggested, consideration has been given only to high ability, low ability, or both. Average ability could be introduced in any combination with the growing list of variables already considered.

Another concretely manifest variable (investment) which has been isolated, in addition to ability and authority, is status. One could select or introduce the participants as individuals with differential status, and could as well vary the degree of differential in status. Of course, the more widely disparate the statuses of the two participants, the wider should be the differential split of the profits from any exchange in which such participants may be engaged, all other variables accounted for.

Summary

This research was implemented for the purpose of investigating

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[20]Generally speaking, the term vertical extension refers to adding more participants, and horizontal extension refers to introducing new variables, or variations to those already considered.

the normativeness of the principle of distributive justice. First, a partial formalization of George Homans' work was attempted, then a survey was implemented to determine whether the relationships established are normative in this society.

Results indicate that the principle of distributive justice may be situational. That is, the outcome, or profits, from a social exchange may be determined by the situational nature of the exchange. And in addition, the investments, costs, rewards, and profits in any exchange seem to vary between the strictly psychological on one extreme, and some admixture of the psychological and economic on the other.

The research was designed to test the validity of hypotheses related to the general hypothesis that the greater the investments an individual has in any exchange situation, the greater should be his profits from that exchange. Although results of the survey tend to support the hypotheses formulated before the research was implemented, more research is necessary to establish any strong support for the hypotheses.

APPENDIX A

The eight forms which follow (labeled A through H) are samples of those actually used in the research. As is obvious, a survey type design was used in this research, along with a counterfactual-conditional statement. Were the attempt anything other than a determination of the normative nature of the principle of distributive justice, this type of design would be at least questionable. However, since the purpose is just that -- to determine the normativeness of the principle of distributive justice -- the counterfactual-conditional survey design is justified.

Among REASONS for deciding the split indicated in several of these appendixes the reader will notice that words are misspelled, grammar is sometimes incorrect, and that sentence fragments are punctuated as complete sentences. All reasons are as directly quoted as is possible, even to the extent that symbols are used in this manuscript if symbols were used in the response (e.g. ¢ for "cents"). All such errors and symbols, so far as possible, were transposed verbatim into this text.

FORM A

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTIONS: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of the two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20.00, and the minimum is $0.00.

The rules dictate that there can be just <u>one</u> team response submitted per question. Imagine that you are the person who is responsible for the answer submitted, and that your partner acts as your advisor. That is, you discuss the question and the alternative choices with your partner, but it is <u>you</u> who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that <u>each</u> <u>of</u> <u>you</u> <u>excels</u> in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer.
2. the answers you submitted as the team's decisions were very often correct.

In totaling the final score, your team has won $14 to $17. This money must be split between you and your partner. In your opinion, how should this money be divided?

a. Percentage of the cash profits I should get:_____%.

b. Percentage of the cash profits he should get:_____%.

Briefly, why would you split the profits this way?

FORM B

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTIONS: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20.00, and the minimum is $0.00.

The rules dictate that there can be just one team response submitted per question. Imagine that your partner is the person who is responsible for the answer submitted, and that you act as his advisor. That is, he discusses the question and the alternative choices with you, but it is he who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that each of you excels in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer
2. the answers he submitted as the team's decisions were very often correct.

In totaling the final score, your team has won $14 to $17. This money must be split between you and your partner. In your opinion, how should this money be divided?

a. Percentage of the cash profits I should get:_____%

b. Percentage of the cash profits he should get:_____%

Briefly, why would you split the profits this way?

FORM C

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTION: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20.00, and the minimum is $0.00.

The rules dictate that there can be just <u>one</u> team response submitted per question. Imagine that you are the person who is responsible for the answer submitted, and that your partner acts as your advisor. That is,you discuss the question and the alternative choices with your partner, but it is <u>you</u> who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that <u>you excel</u>, and that <u>your partner performs poorly</u> in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer
2. the answers you submitted as the team's decisions were very often correct.

In totaling the final score, your team has won $14 to $17. This money must be split between you and your partner. In your opinion, how should this money be divided?

a. Percentage of the cash profits I should get:_____%.

b. Percentage of the cash profits he should get:_____%.

Briefly, why would you split the profits this way?

FORM D

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTIONS: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20.00, and the minimum is $0.00.

The rules dictate that there can be just <u>one</u> team response submitted per question. Imagine that your partner is the person who is responsible for the answer submitted, and that you act as his advisor. That is, he discusses the question and the alternative choices with you, but it is <u>he</u> who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that <u>you perform poorly</u>, and that <u>he excels</u> in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer
2. the answers he submitted as the team's decisions were very often correct.

In totaling the final score, your team has won $14 to $17. This money **must be** split between you and your partner. In your opinion, how **should** this money be divided?

a. Percentage of cash profits I should get:_____%.

b. Percentage of the cash profits he should get:_____%.

Briefly, why would you split the profits this way?

FORM E

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTIONS: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20.00, and the minimum is $0.00.

The rules dictate that there can be just <u>one</u> team response submitted per question. Imagine that you are the person who is responsible for the answer submitted, and that your partner acts as your advisor. That is, you discuss the question and the alternative choices with your partner, but it is <u>you</u> who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that <u>you perform poorly</u>, and that <u>he excels</u> in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer
2. the answers you submitted as the team's decisions were very often correct.

In totaling the final score, your team has won $14 to $17. This money must be split between you and your partner. In your opinion, how should this money be divided?

a. Percentage of the cash profits I should get:_____%.

b. Percentage of the cash profits he should get:_____%.

Briefly, why would you split the profits this way?

FORM F

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTIONS: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20, and the minimum is $0.00.

The rules dictate that there can be just <u>one</u> team response submitted per question. Imagine that your partner is the person who is responsible for the answer submitted, and that you act as his advisor. That is, he discusses the question and the alternative choices with you, but it is <u>he</u> who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that <u>you excel</u>, and that <u>your partner performs poorly</u> in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer
2. the answers he submitted as the team's decisions were very often correct.

In totaling the final score, your team has won $14 to $17. This money must be split between you and your partner. In your opinion, how should this money be divided?

a. Percentage of the cash profits I should get:_____%.

b. Percentage of the cash profits he should get:_____%.

Briefly, why would you split the profits this way?

FORM G

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTIONS: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20.00, and the minimum is $0.00.

The rules dictate that there can be just one team response submitted per question. Imagine that you are the person who is responsible for the answer submitted, and that your partner acts as your advisor. That is, you discuss the question and the alternative choices with your partner, but it is you who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that each of you performs poorly in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer
2. the answers you submitted as the team's decisions were not often correct.

In totaling the final score, your team has won $4 to $8. This money must be split between you and your partner. In your opinion, how should this money be divided?

a. Percentage of the cash profits I should get:_____%.

b. Percentage of the cash profits he should get:_____%.

Briefly, why would you split the profits this way?

FORM H

Sex: M F

Age:_____

Class:_____

Major:_____

DIRECTIONS: The following situation is purely hypothetical. You are asked to project yourself into the position described in the statement, then respond to the closing inquiry in the manner you think you would were you actually in the position.

You are one of two persons participating jointly in a task involving multiple choice questions and answers. The two of you are asked questions based on a knowledge of a wide range of general information. As a team, you will be asked twenty such questions. For each correct response, the team is awarded $1.00, and for each incorrect response, the team receives no award. Thus, the maximum that the team could win is $20.00, and the minimum is $0.00.

The rules dictate that there can be just one team response submitted per question. Imagine that your partner is the person who is responsible for the answer submitted, and that you act as his advisor. That is, he discusses the question and the alternative choices with you, but it is he who must submit an answer as the team's response.

Further suppose that it is common knowledge between you and your partner that each of you performs poorly in this type of task.

Upon completion of the task you realize that:

1. you and your partner have nearly always disagreed on what each of you thought was the correct answer
2. the answers he submitted as the team's decisions were not often correct.

In totaling the final score, your team has won $4 to $8. This money must be split between you and your partner. In your opinion, how should this money be divided?

a. Percentage of the cash profits I should get:_____%.

b. Percentage of the cash profits he should get:_____%.

Briefly, why would you split the profits this way?

APPENDIX B

This selection of responses is included so that the reader can get some idea of the kinds of 50-50 response patterns which were submitted. An attempt was made to include response patterns which were representative, but at the same time reveal the scope and depth of the thinking of some of the respondents.

The reader should also be aware of the fact that these are data from just 71 of the 485 respondents. That is only 14.56 percent of all responses submitted. Were someone else making these selections, the content of this appendix would probably be different from what it is.

FORM	REASON
A	Cooperative effort involved - 50-50 split only fair and mutually satisfactory way to divide.
A	I could have been wrong just as easily and the take might have been lower. Anyway, I've got $7 I wouldn't have had otherwise. This saves haggling over a petty thing.
A	I probably wouldn't like doing it this way, but I'd probably have made an agreement with my partner before-hand to split whatever we might win in half. It at the end, considering what had happened above, if he (or she) were to offer to give me a larger share I wouldn't refuse. But I wouldn't fight over a few dollars, since I don't think it's worth it!!
A	A) Both spent equal time at the contest B) Both are capable of excelling at this kind of a task C) There is no diplomatic way to suggest an unequal division without making him seem unimportant D) The $10-14 isn't worth the uncomfortable situation
A	Having entered the contest as a two-man team, one would divide equally the total earned irregardless of who had more correct answers. I would not extend this judgement to occupation when differences in skill and ammount of effort required determine who get what. The team effort gave the product each man excelling, each giving opinions. Other life events don't have the attitude of cooperation in contest.

FORM	REASON
A	As it was a team action, win or lose, as in any team action, it (profit) should be divided on an equal basis, wether credit or blame - besides my conscious would bother me if it weren't split 50-50. Any team has weaknesses & strengths which must be shared by the whole.
A	So as not to "make waves." Also, it is possible that some of my right answers might have been arrived at through our mutual discussion. Finally, I would assume that we had made a compact for a 50-50 split before beginning since we had common knowledge between us that we "each excel" in this type task.
A	Because on this assignment each of us were partners and responsible to the other. Perhaps it was an off day for partner and I know it could in turn be a bad day for me. Besides the profits aren't that great There were probably alternative motives involved in participating And next time I'd first get another partner!
B	You went into the question-answer test with knowledge of the rules and that it was a "joint" undertaking. Regardless of disagreement over the answers the partnership was in force & so division of money benefits equally should follow the participation.
B	In my opinion, this team task involves what I would consider to be equilalence of concern and mental involvement.
B	This was a team effort and as a two man team each member gets 50% be it half of twenty or half of nothing.
B	I would assume that the points brought up by me in the discussion helped reinforce my partner belief. After all, we both excel!
B	Because of the structure of the situation - The decisions are joint even though only one responds. The burden of proof is split so that each has an equal obligation to prove his answer to be right. The fruits of this obligation are the result of discussion & should be split equally.
B	Because this was a team effort, the split should be 50-50, If it had not been agreed ahead that it would be a beam effort - then a different arrangement could have been made.
B	Both of us would have spent the same amt. of time & thought, approx., in answering these questions. The task was supposed to be a team effort and in one way or

FORM	REASON
B	another, both participated. This division would avoid any possible conflict on the split of $$.
B	because this was a team effort. The one fellow just might have been rattled a bit this time. Both probably feel disgruntled. Don't rock the boat by placing value points on the worth of each's participation.
C	Easy come and easy go - why cause strife between you & your partner over such a small amount of money.
C	The profits should be split this way since these are the rules of the game. The knowledge that you excel over your partner was known before the game was started. It could well have been assumed that your answers would most often be correct. With this knowledge, you agreed to play the game & play by the rules set. Since you made this agreement in the beginning, the profits should thus be divided as agreed upon by both of you (50% & 50%).
C	If I am on the team, it means I should have considered the pros and cons, i.e. strength and weaknesses of myself and my partner, how I would feel if I used his answers knowing he does not excel, etc.. If, weighing these factors carefully in my mind, I decided to go ahead and enter the team situation, I should be willing, and determined to accept the results as a team (i.e. - 50% - 50%).
C	Because: even though I might feel I should have more, I would be obligated to give my pardner half - code of the road, sort of thing.
C	A game is to test one's skill and stimulate "thinking." I consider the situation described a game and the factor of chance that I drew such a partner is something I must put up with. Intellectual thinking is not (in this situation) something to be paid for if the factor of higher intelligence come in. The parter put his effort into answering.
C	Although I believe that I am a very competitive person, the fact that we were to work with each other "as a team," it would only be fair that we share the reward. A team may have good & poor players, yet the team, as a whole is credited with a winning effort. I know I would feel badly if I were the poorer of the two team members & got a smaller share of the reward. I would not feel this way because I got less money, but because someone else decided my contribution to the team effort was less than someone elses.
C	Without a partner, he or anybody else, I wouldn't have gotten a cent so he was just as important as I was in winning.

FORM	REASON
C	Each partner was doing what the agreement seemed to indicate. The fact that I was able to make better decisions should not effect the distribution of rewards. If this arrangement was to be of more than temporary duration, however, I would probably go looking for another partner.
C	Because we were performing as a team, not for ourselves alone. The fact that I had contributed more means nothing in the outcome. Perhaps my partner does well in another area & had we been performing as a team there, I would have been the weaker partner.
C	Why be bastardly for 3 or 4 dollars? If stakes were higher, and I was convinced I was instrumental in achieving a high score I would feel deserving of a greater percentage.
C	Why shouldn't I split the money fifty-fifty. Regardless of my ability there is no reason to do personal harm to the other person. I lose nothing if I give it all to him. Anything I get is a gain. And to this "gain", of course, I may add a personal feeling of well-being for being such a nice guy.
D	I entered the contest on a partnership basis. The rules were fair and made clear before the start of it. I therefore believe since it took both his and my time and talents that the money should be divided evenly. Had I answered them all correctly and he poorly the same would go. This is what I call a parternership risk. Two of us were needed and fate determined who would excell. The only fair way to both is 1/2 & 1/2. Obviously if we disagreed but yet won a lot of money it must not have been too badly a team effort.
D	If the money were to be split in any other way, it should have been previously stated. Both people are taking on equal amount of time and are using their knowledge to the best of their abilities. There is no reason, even if one seems to be incorrect, for that one to be penalized.
D	1. A team effort - 2 members - 50-50 2. Even though your responses would not have been as rewarding as his your reaction to the questions served a useful purpose to your partner - reinforcing his convictions - or making him further justify his answers.
D	Doesn't make any difference how smart my partner is - it is the principle of a fair deal.
D	I would of course ask him if this would be all right

FORM	REASON
	with him, and if he wanted more, I would say all right.
D	We are a team if you want the money divided any other way everyone should be on their own.
D	This is a team approach. They entered the task as a team & I am assuming voluntarily thus they should split the profits. One could not work without the other even though one might be more capable.
D	Because of the structure of the task both have as much to lose (less than 20) as the other (the 2 individuals) both being equally committed it would seem logical that in order to maintain harmoney it should have been decided before - and this would be I assume a 50/50 % bargain - (actually the reason is partily to avoid arguement, given more alternatives I might have been able to given a different answer).
E	This small amount of money isn't worth quibbling about. Probably he deserves more, but how much more is difficult to say, probably best thing is to redistribute teams, next time, any division is arbitrary, but perhaps the illusion of equality is best & easiest to maintain.
E	Because we are a team. When two are engaged in a project, irrespective of the talents or levels of intelligence - the law of fairness which should I undergird a team predominates - i.e., 50-50. If one is so much more superior, he would be wise to work alone.
E	1. He is a partner. 2. The decision making was collective. 3. He expertise was needed as a primary factor despite the ensuing results. 4. I sure wouldn't settle for less than half if I was him.
E	Both of us have played an equal part in the task. Even though he might excell at this type of thing, I had to make the final decision about whether or not his answers appeared correct. Even though he made up the answer, I would be <u>responsible</u> for us as a team.
E	Because it is a team effort which generally is to be considered a 50-50 proposition. The fact that it is common knowledge that he performs better has given him the opportunity to enjoy this superiority & me to be considered inferior which is not a situation that I would enjoy.

FORM	REASON
E	Unless agreed upon before hand, that the money would be divided in a higher percentage for the smarter member, I feel that a 50-50 division would be the most equitable - the total cash award is negligible in amount, & hardly worth arguing over & trying to divide - the partnership though unequal - would best benefit from an equal split - no hard feelings between one offended person or the other.
E	This is the easy, middle-of-the-road way out. That's what I usually take. However, if my partner objected in the least way, I would give in & give him a larger percentage. If I was responsible for the decision but my partner made most of the right decisions I would give him a larger share.
E	First of all, it was a team task. Secondly, although I made the final decision, my partner (advisor) helped me to make that final decision. Even though we disagreed initially, to rack up $14 to $17, I must have taken his advice at some time.
F	I would split the profits this way because each person participated on an equal basis. I am assuming that the other person was chosen arbitrarily as the one to submit the answers & therefore is not in any way more in charge of the situation. They should each equally share the rewards & failures.
F	The sum of money and the amount of work involved is not great enough, to bother with figuring out who should get more.
F	I would not subject any person to a feeling of inferiority. The money issue is a sensitive one between individuals and may result in the loss of friendship. I would value the personal relationship much more than I would the money.
F	I would assume we entered as a team, therefore placing equal responsibility on each of us. Reward would not be based upon who answers. If, however, this was extended over a period of time, something should be worked out where the partner who continually excelled should be justly awarded.
F	I would question first, if it is <u>common</u> knowledge that I excell. It is obvious that in this instance my decisions were correct - But it none the less is a team project. Being a woman of little greed, I am willing to share equally. Perhaps if the stakes were higher, I would not be so inclined. Further it was agreed ahead

FORM	REASON
	of time that it was a joint task.
F	Because it is a team effort, I would have split it 50-50. The fact that we worked together and that I was aware of his weaknesses but took him as a partner anyway would justify a 50-50 split.
F	My partner might feel better. He might think of himself as my equal then.
F	Simply because I detest quibbling over money, and because I always want to feel that I have given a little more than my share. Not because I am generous surely, but I would hate to have anyone think that I took more than I deserve.
F	The nature of any cooperative enterpiece is this way; if you agreed to participate jointly then go ahead & participate. If you want to participate & you can't go it alone then split even!
F	Because $3 or $4 is not worth causing a fight. However, if my partner suggested that I get more than 50% of the money I would go along with whatever amount he suggested.
F	Regardless of who excelled or who performed poorly and who answers were right & whose were wrong, the effort was a team effort and the profits should be split evenly.
G	It was a joint effort, and even though the answers my partner submitted were not correct, there is no reason to believe he didn't work just as hard. Also, my answers were far from being perfect.
G	We worked as a team, knowing that each of us wasn't good at this type of test but still striving together to come up with the best answers possible. Sharing the work and answer decisions equally we must also share the profits, or lack of them, equally.
G	Its so little as to be insignificant and since neither knew the correct answers why bicker over a buck or two - anyway before hand I would have decided how the profits were to be split.
G	Since it was a team event with no significant specialization on the part of either member which might require greater knowledge or training of either member, I believe the profit should be devided equally.

FORM	REASON
G	Teamwork depends on each member of the team contributing what he can, not necessarily equally, of each gives his best, they have contributed equally. Therefore divide the awards equally.
G	Because, under the usual frame of mind, in entering a contest of this type, is one of a mutual profit for each member of the team involved, either a loss or a profit. Although nothing was probably agreed upon before the contest, this is the accepted "american way."
G	It was a team effort. Assuming that the decision as to who could submit the answers was arbitrary there should be no differentiation in reward. The two were acting as one & thus the profits should be awarded evenly.
G	In order to eliminate hostility between myself and my partner, I think the profits should be divided evenly. Also both were equally involved in decisions, etc.
G	Because it was a joint venture and he should not be penalized for my mistakes nor me for his. Since neither one of us were very good at it both should gain the same reward.
H	Despite fact that the partner disagreed, any rewards should be divided equally, since the task was a group effort & each of you performs poorly.
H	Before entering myself in this situation I would have created an understanding with my partner that we would split the money regardless of how our own individual responses would have been (whether correct or not). We worked as a team and would be rewarded as a team. Only if he suggested me taking more (if my responses would have been correct) would I accept it.
H	The profits have to be split in this way as the experiment was a partnership. Even if the answers submitted were not often those I would have chosen myself, it is not my position to protest them as I was acting merely as an advisor. It was agreed that he would submit the final answers, therefore, I must abide by his decisions and split the profits thus acquired.
H	The amount of money was not large and rather than put up a big fuss and appear to be a poor sport over such a small thing I would divide the money equally - after all it was a team effort. I would try if possible not to team up with this person in this sort

FORM	REASON
	of thing again.
H	I would split the money this way as to not hurt the feelings of my partner. And furthermore because this is what seems socially correct. I would in no way be thought of by this partner as unfair nor could he talk about me to others as being unfair.
H	When one assumes this type of responsibility he must also assume the variety of consequences and circumstances which may imply themselves in it. It becomes a calculated risk subjected to the kind of decision common in everyday life. As long as the situation is hypothetical want reality of application do you expect to find? Why $4-$8? What implication may this notion have had the amount been increased to say $16-$20?
H	Since my partner and I had apparently agreed to undertake this task as a team, regardless of the outcome, the cast profits from this endeavor should be split equally. Although my partner may have neglected my advice on several questions, in order to work as a team, and abide by the rules of the game, agreed on beforehand, his responses stand as <u>our</u> responses.
H	1) First of all, I would like to say that by natural law - the two of us had entered into an unwritten social contract •••a joint effort - for better or worse. He was speaking figuratively for myself also whether I cared for his answer or not.

APPENDIX C

Following is an actual listing of the responses given by those individuals who would not split the profits of the exchange in a 50-50 ratio. These responses, since they are relatively few in number, are transferred verbatim from the questionnaire. The quotes are listed by FORM designation and also by the percentages of the split. Under the "Reason" heading are the comments of the several respondents to the question "Briefly, why would you split the profits this way?"

FORM	SPLIT		REASON
	Self	Other	
A	60	40	Because basically I'm an unfair person.
A	100		I need it worse than he does.
A	75	25	If I submitted my answers to the questions upon which we disagreed and subsequently found, as the figure shows, that my answers were most often correct, I would take the greater share of both the credit and the money and proceed to get myself another partner.
A	65	35	Being the person who is responsible for the final decision I feel that I should get the larger share of the profits. Mainly, because it is on my final decision that the answers are submitted and not my partners.
A	60	40	We nearly always disagreed. Yet, we were usually right. We don't know who was right - but I made the final decision. Thus, I should get a little more of the money.
A	55	45	I feel since I made the final decision I should receive slightly more than my partner since he has only acted in an advisory position.
A	60	40	I feel it would only be fair, if I knew none of the answers and he advised me the correct ones, I think it would only be fair that he received more money than I would. If I would have followed

FORM	SPLIT Self	SPLIT Other	REASON
			his advice and the answers would have been wrong, we as a team would have even less money to split between us. Even though it is a partenship people should get the amount of $ in % to the amount of work they put into it.
B	40	60	Mainly because of the responsibility of the other person to submit the answers. The fact that we both excel in this type of test should balance the fact that he was right most of the time. Even if it had been reversed - with me coming up with the right answers the fact that it is his responsibility gives him an edge in the split.
B	25	75	My partner was usually correct while I was usually wrong. It was he who gave the final answer and was usually correct, probably about 3/4 of the time.
B	30	70	I operate under the premise that there should generally be some agreement between contribution and reward though the 70-30 decision is arbitrary, it is more satisfying than a 50-50 split.
B	30	70	Because you both contributed about equally but he did a majority.
B	40	60	The fact that we did not agree and that my decisions were for the most part wrong. I would feel that I was not entitled to more, but by virtue of my participation and, I assume, some of my answers were correct entitle me to something.
B	$33\frac{1}{3}$	$66\frac{2}{3}$	His knowledge was superior in most cases. But, I still had to be there or else neither of us could have won any money. So, I receive payment for time invested and he for time and knowledge. Had there been time, I could have made an agreement prior to the quiz to split the cash 50-50.
B	25	75	If he was responsible for the answer submitted, that in itself would justify his getting a little more. But due to the fact that the two usually (very often) correct, and because he was responsible for the answers, therefore

FORM	SPLIT Self	SPLIT Other	REASON
			he probably more often submitted his answers which were often right, he therefore deserves an even larger percentage of the money.
B	40	60	Even though we were a team - I wouldn't feel capable of accepting one half of the credit for right answers I hardly ever contributed to arriving at. The final decision was his - not mine - so he actually should receive more credit for having the harder task of choosing between the facts.
C	75	25	Because I feel that my partner added little to the final answer that I submitted. He should be compensated somewhat because he did at least offer some advice.
C	66	33	I am the one responsible and like in business where the responsibility one takes on dictates the salary, I think this would be the case. It would depend upon his answers and reinforcement of the right answers (and he was mostly wrong).
C	60	40	While I may "deserve" a higher percentage, we did act as a team, it did take up my partner's time and effort.
C	75	25	Because if I were the one who always answers wrong, I would feel it unfair for me to ½ the profit.
C	75	25	Because I am aware that my partner is incompetent in the area.
C	75	25	Because his answers were very often wrong and if he had answered, he would have probably earned less than he won with this particular percentage.
D	20	80	It is obvious that he did most of the work and that I was nearly always wrong, so I feel the percentage should reflect this situation. Giving myself the benefit of the doubt, however, I would want 1/5 of the earnings.
D	$33\frac{1}{3}$	$66\frac{2}{3}$	He knew the answers and I didn't therefore he should get more money.

FORM	SPLIT Self	- Other	REASON
			However, I was his partner and should receive some of the money that was won.
D	40	60	He has done most of the work and carried the biggest share of the load.
D	25	75	If I gave absolutly no correct answers to him and I knew nothing of what was going on I wouldn't feel right taking half the money.
D	40	60	Working as a team should lead to a 50-50 split. The fact that we won any money at all was because of my partner so he should be justly rewarded. The 60-40 split is a combination of the above 2 reasons.
D	25	75	I would give him the benefit of his position in excelling in this task, and feel for my part that I have gained from this experience.
D	25	75	Because I am dumb and he is smart; but I need a little money to pay my phone bill.
D	25	75	Because he had the ability and knowledge to determine the correct answers. Also, he was most responsible for turning in the answers. I only acted as an advisor. Althou I probably put in the same amount of time and energy, he made better use of his. Therefore, he should be justly rewarded. (Besides - the object of the test was to work as a team, not make money.
D	40	60	I was on the team, and he did make $X so the fact that I was there should dictate a certain per cent. I was not as skilled as he; therefore, he should get more, but the value of discussion on my part and his part contributed to team success. I was ad odds, but his determination and skill netted us our profit. I played a part in that we differed might have stimulated partner to answer as he did and perhaps answers I gave.
D	35	65	It was his knowledge that won the money for the team. However, my discussion of the questions was of some value at

FORM	SPLIT Self	SPLIT Other	REASON
			arriving at the correct answers, but I feel that since it was mostly his effort he should be rewarded accordingly.
D	$33\frac{1}{3}$	$66\frac{2}{3}$	Realizing that my partner, in choosing the correct answers, actually won the money, I would feel obliged to see that he received the larger share of the money. Thus, I would take 1/3 of the amount won to account for the advice I had given and for the few correct answers I have contrary to his incorrect responses. He would receive 2/3 of the money due to his greater proportion of correct responses.
D	10	90	His investment as far as his knowledge is greater by far, but the subject's time was spent at the task so he deserves some compensation. Reward should be equal to investment.
D	40	60	His answers were the correct ones, therefore, he should get somewhat more of the profits; but - the proposal was that we work on a team basis so the difference in profits should not be very great no matter what the outcome.
D	$33\frac{1}{3}$	$66\frac{2}{3}$	I feel that I was, though not of real contribution to the team, there <u>in case</u> we needed me. Had I been instrumental in the victory, I would have been inclined for more of a 50-50 proposition.
D	30	70	You should get some for just being picked to be on the team and also, because you obviously didn't argue with your partner so violently that you forced him to give your answer. He should get most of the money because he knew the right answers and had courage to stick by them.
D	10	90	10% for the "I" character for participating in this testing situation. 90% for the "he" character for it was only thru him that any winnings were earned. It seems only fair to give him the greater of the share of the profits.

FORM	SPLIT Self	SPLIT Other	REASON
D	0	100	It was his effort which won the money. However it seems incomprehensible that some arrangement weren't made before the contest as to the division of the money. Had it been firmly established each of us was to receive half, I might consider a 50-50 split. Even then I think I might offer my half to him. However if the amount were more important I would probably demand an 50-50 split.
E	100	0	Because, being as smart as he is, he wouldn't need these few dollars; he would probably be able to get a good job.
E	60	40	I would want a slightly greater share because having been forced to be the team spokesman I must have had more worries about whose answer to give, in the face of our both recognizing my inferior performance.
E	70	30	1. Assumption of responsibility should be rewarded 2. Merit.
E	0	100	Because if I would have answered the questions, the prize would have been very insignificant, so as long as he was more accurate he should get the money.
E	40	60	I am tempted to split the profits 50-50 because the final responsibility for the choice of the answer is mine. However I believe I would split it as indicated, out of deference for the partners greater ability.
F	60	40	Since I am supposedly smarter than he, the correct answers were probably mine. Evidently, he can not do well on a multiple choice test. However, I think I deserve a larger percentage of the profits, since it was my thinking that got the correct answers.
F	25	75	Mainly because it is he that makes the final decision and the responsibility of the answer falls on his shoulders. I can only advise, thus not accepting the responsibility of money lost or gained. However I do feel my suggestions would be influential to my partner, and

FORM	SPLIT Self	SPLIT Other	REASON
			thus should be alloted about 25%.
F	40	60	Because he was responsible for the correct answers - 1st by being the one to make the response and by being the one who was most often correct.
F	75	25	Before entering such a situation, I would stipulate the above terms of cash award distribution. It is given that my general knowledge is superior - therefore my partner would either conform to my demands or enter the contest with another partner.
G	0	100	Because if I had followed his advise, the team would have won more money - and his share - even split 50-50 would have been more than $4!
G	60	40	Because I feel that I was in the more responsible situation, I had to make the decision while the other person simply advised me. Therefore I should get a larger share of the profit.
G	60	40	I would aplit the profits in this way for two basic reasons; firstly, because in the final analysis I was responsible for the answer submitted any "blame" or honor would fall on me. Secondly, because of the small amount of money involved there is no reason why my partner should be dissatisfied with 40%.
G	55	45	Since I have to submit the correct answer, I should be entitled to a little more than half of the money.
G	$66\frac{2}{3}$	$33\frac{1}{3}$	Because the final decision was up to me and I therefore shouldered the responsibility for the answers. Although my partner could shift the blame to me, I had to assume final responsibility therefore the bulk of the reward should be mine.
G	75	25	Instead of splitting it in half, since I have the responsibility I should get more.
H	40	60	Since the process involved his thoughts and used me as a reference point for evaluating these thoughts, I would make

FORM	SPLIT Self	- Other	REASON
			the difference small. But also - if a money value can be assigned or any dividend social or otherwise given - the extra responsibility he had warrants a larger % of the reward.
H	40	60	Since my partner had the final decision to make and since this would be difficult in light of the contradictory answers, he had more responsibility in the answer given so should get more of the money.
H	75	25	The team as a whole only had 4 to 8 of the 20 questions correct and the other team member submitted several incorrect answers. I would therefore have answered most of the correct questions and should receive a larger percentage of the reward.
H	40	60	He has done more work than I, he has done all the talking. I just coached him, so I would take less money than he.
H	40	60	He is the person responsible for the answer, so he had made the final choice and thus should get more than I.
H	60	40	Upon analysis of the raw score, if I felt that we had lost money because he hadn't considered my advice he should be penalized.

APPENDIX D

This is a listing of the responses given by those individuals who I believe did not participate in sincerity. These responses were given to the question "Briefly, why would you split the profits this way?" Once again, they are direct quotes.

FORM	SPLIT Self	Other	REASON
A	60	40	Because basically I'm an unfair person.
A	100		I need it worse than he does.
E	100		Because, being as smart as he is, he wouldn't need these few dollars; he would probably be able to get a good job.
G	50	50	Hypothetically charitable today.

APPENDIX E

Included here are responses which cannot be used in the analysis of the data. These few respondents did not indicate an actual percentage split of the profits, but their data is a part of the research, and must be acknowledge in this report as part of the results.

FORM	SPLIT	REASON
B		I would say that for every answer that he thought of that was correct, he would get the dollar. For every one I said that was correct, I would get the dollar and for the answers we both agreed on, we each would get 50¢.
D	Variable	Prior to answering the questions the % should be decided upon. Since it is already known that I do poorly there will be some sort of compromize. This must be a priori to answering any questions. If this wasn't done before I would refuse to be put in a decision making position.
F		I think it should be decided beforehand, by both, how the profits should be divided; whatever the outcome of the task and its score, it should be abided by. Decided before hand, there will be no disagreement.

APPENDIX F

What I have done here is perform the operations necessary for arriving at a mean percentage split for respondents who replied with a percentage split other than 50-50 in FORM C and FORM D. Again, the respondents in each of these forms are in a situation of exchange with each other. These calculations are representative of those necessary for each of the four exchanges, and all the remaining calculations were performed in a similar manner.

FORM C	
Self	Other
60	40
75	25
66	33
75	25
75	25
75	25
426	173

FORM D	
Self	Other
40	60
20	80
33 1/3	66 2/3
40	60
25	75
00	100
10	90
30	70
33 1/3	66 2/3
25	75
40	60
10	90
33 1/3	66 2/3
35	65
40	60
25	75
25	75
465	1235

$$\frac{\text{FORM C Self total plus FORM D Other total}}{\text{Number of respondents to FORM C plus number of respondents to FORM D}}$$

$= A^+$ percentage in an $\begin{matrix} A^+ \\ B^- \end{matrix}$ exchange. $\frac{426 + 1235}{6 + 17} = \frac{1661}{23} = 72.22$

$$\frac{\text{FORM C Other total plus FORM D Self total}}{\text{Number of respondents to FORM C plus number of respondents to FORM D}}$$

$= B^-$ percentage in an $\begin{matrix} A^+ \\ B^- \end{matrix}$ exchange. $\frac{173 + 465}{6 + 17} = \frac{638}{23} = 27.74$

$$A^+ = 72.22$$

$$B^- = 27.74$$

$A^+ + B^-$ should equal 100. They do not in this, and other cases because some respondents replied with 66-33 splits, and I thereby lose one percentage point before I begin my calculations.

BIBLIOGRAPHY

Blau, Peter M. The Dynamics of Bureaucracy. Chicago: University of Chicago Press, 1955.

Camilleri, Santo F. "Research Plan," Michigan State University: (mimeographed, unpublished and undated).

Homans, George C. Social Behavior: Its Elementary Forms. New York: Harcourt, Brace and World, Inc., 1961.

Jackson, Elton F. "Status Consistency and Symptoms of Stress," American Sociological Review, 27(4):(1962), 469-480.

Kimberly, James C. "A Theory of Status Equilibration," in Berger, Zelditch and Anderson (eds), Sociological Theories in Progress. Boston: Houghton-Mifflin Co., 1966.
Also as Technical Report #6, Office of Naval Research, Contract Nonr 1181 (11), Project NR 179-740, (undated).

Kimberly, James C. "An Experimental Test of a Theory of Status Equilibration," Technical Report #7, Office of Naval Research, Contract Nonr 1181 (11), Project NR179-740, 1963.

Thibaut, John W., and Kelley, Harold H. The Social Psychology of Groups. New York: John Wiley & Sons, Inc., 1959.