ABSTRACT

SENTIMENT AND OCCUPATIONAL CHOICE

By

Malcolm McReynolds

The primary objective of this study was to test the hypothesis that there is an association between sentiment and voluntary actions. A secondary problem was to test the hypothesis that the tentative occupational choices of high school juniors and seniors were positively associated with positive sentiment and negatively associated with negative sentiment. Sentiments and beliefs about jobs, the means to acquire jobs, and how specific reference groups are perceived in relation to the selection of jobs were considered as major variables in the choice process.

Sentiment as expressed in the rankings of occupational goals and the perceived means to these goals was found to be associated with occupational selection as measured by tentative job choices at the time of the interview. Sentiment toward reference groups was not clearly distinguished from sentiment toward means and goals and did not appear to increase the association.

For those who were considering plans for college an additional analysis was made. A second test of the hypothesis of an association between the sentiment expressed toward a particular college and action choices made during the interview indicated a strong negative

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association between sentiment as measured by lack of knowledge about the means to be accepted by the tentatively chosen college and a stated desire to become more informed. Stated desire was measured by a series of choices made during the interview.

Additional findings supported a hypothesized relationship between social class and occupational choice with upper strata students considering a significantly larger number of more prestigeful jobs than did lower strata students. Lower strata students also perceived a significantly different pattern of influence upon their occupational and educational choices with mothers playing a greater role in the lives of the lower strata students, and fathers being considered more important by the upper strata students.

SENTIMENT AND OCCUPATIONAL CHOICE

By

Malcolm McReynolds

A THESIS

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DOCTOR OF PHILOSOPHY

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1972

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ACKNOWLEDGEMENTS

It is difficult to express appreciation to everyone who helped bring this thesis to a conclusion. The following represent only a few who aided at one or more of the many steps in the extended process.

To Professor Charles P. Loomis who gave me support and assistance during the planning, thesis proposal, and pre-testing stages.

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To my father- and mother-in-law who lent me their home while I was collecting data.

To my parents who offered encouragement tempered with empathy and had the wisdom to know the difference.

To committee members, Professors J. Allan Beegle, William A. Faunce, and Duane Gibson who served both as support and challenge.

To Professor John T. Gullahorn who provided guidance and intellectual understanding.

To Professor Donald W. Olmsted whose suggestions, patience, and endurance involved much more of his time and energy than can be expected of any committee chairman or teacher.

To my wife whose unliberated support extended far beyond the typewriter and whose liberated encouragement was greater than can be expressed here.

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INTRODUCTION

Statement of the Problem

A more precise and accurate statement of how humans beings make choices within social contexts has been implicitly or explicity sought by sociologists, social psychologists, psychologists, economists, and others for much of the history of man. While psychologists have tended to emphasize individual traits and sociologists have concentrated upon the group characteristics determining man's behavior, the social psychologist has tried to utilize both set of variables.[1] If the social psychologist is trying to formulate connections between social and psychological phenomena he can be considered on a very broad level of generalization. Our less inclusive problem here is directed toward individual choice in the social context. Its investigation requires research in a still narrower substantive area. Although occupational choice has been selected any other social choice situation might have been made at this less inclusive empirical level.

The second portion of the problem grows from our question about how individuals make choices in social contexts and requires the delineation of the more general theoretical framework within which fall the hypotheses to be tested. Minimal requirements for this theoretical

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[1] Gordon W. Allport, "The Historical Background of Modern Social Psychology," Handbook of Social Psychology, edited by Gardner Lindzey (Reading: Addison-Wesley Publishing Company, Inc., 1954), pp. 3-56.

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framework will be the specification of variables, theoretical definition of the variables, the relevant theoretical relations between the variables for the hypotheses being tested, and some of their relations to other similar theoretical frameworks.

Thirdly, some hypotheses which are logically deduced from the theoretical framework must be formulated and placed in a testable form. A technique for testing the hypotheses must be developed considering the theoretical and empirical restrictions under which it is to be used. Since this is not a methodological investigation most of the procedures will involve techniques previously used in social science research. Finally, the observations taken from a sample must be evaluated considering both the validity and reliability of the techniques and the accuracy of the theory used. Such results, to a limited extent, represent a test of the theory advanced even though one case cannot be said to completely validate or refute a theory. However, a test can provide some evidence for or against acceptance of some portion of the theory.

The problem of the selection of variables, their operational definitions, and relevance to sociology or social psychology will be considered first. Next, the relationships between the variables will be postulated, hypotheses will be derived, and a method for gathering evidence to refute or support these hypotheses will be described. Finally, data collected from high school students will be used as a test.

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CHAPTER I

THEORETICAL DEVELOPMENT

Variables

Belief or Cognition

Krech points out that Plato's "truth" and Aristotle's "rational" might both be translated into cognitive or cognition.[1] Comte alluded to the idea that the seat of reason was somewhat apart from that of the emotions.[2] Tönnies considered at least one part of sociology to be the "things" resulting from social life which are the products of human thinking. His use of the term "belief" varied slightly but his idea of "common beliefs" seems to remain consistent.[3] Pareto did not attempt to specify the exact nature of beliefs, even though he acknowledged their importance based upon the number of individuals who hold them.[4] Max Weber is another sociologist who did not specifically

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[1]David Krech, "Notes Toward a Psychological Theory," Perception and Personality, edited by J.S. Bruner and David Krech (Durham: Duke University Press, 1950), pp. 71-72.

[2]August Comte, The Positive Philosophy of Comte, translated by Hariet Martineau (Third Edition; London: K. Paul, Trench, Trubner and Company, 1893), pp. 9-10.

[3]Ferdinand Tönnies, Fundamental Concepts of Sociology, translated and supplemented by Charles P. Loomis (New York: American Book Company, 1940), p. 13; p. 56; p. 223.

[4]Vilfredo Pareto, The Mind and Society: A Treatise on General Sociology, edited by Arthur Livingston, translated by Andrew Bongiorno and Arthur Livingston (New York: Dover Publications, 1963), p. 44; George A. Lundberg, Clarence C. Schrag, and Otto N. Larsen, Sociology (New York: Harper and Brothers, 1958), pp. 29-37.

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Chapter II

categorize "belief" as a major variable. He does, however, refer to the belief of an individual toward the state and there is a cognitive element in his descriptions of "meaningful action" and "social behavior."[1]

One of the more recent sociologists who has considered some aspects of cognition or belief is Robin Williams. His definition is not as inclusive as used here since he considers "reliably certified knowledge" as generally being excluded.[2] Kingsley Davis discusses the transfer of knowledge from one generation to the succeeding one and considers religious belief to be the cognitive aspect of religion.[3]

Another contemporary sociologist who has incorporated a concept of belief into his "processually articulated structural model" of a social system is Charles P. Loomis.[4] Professor Loomis and his associates have also compared this conceptual model with the theoretical positions of Howard Becker, Kingsley Davis, George C. Homans, Robert K. Merton, Talcott Parsons, and Pitirim Sorokin. While Loomis and associates find that some of these writers do not specifically identify belief as a major element they observe a cognitive element expressed in all of them.[5]

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[1]Max Weber, Basic Concepts in Sociology, translated by H.P. Secher (New York: Philosophical Library, 1962), p. 43; p. 29.

[2]Robin M. Williams, American Society (Second Revised Edition; New York: Knopf, 1951), p. 23.

[3]Kingsley Davis, Human Society (New York: The Macmillan Company, 1949), p. 44; p. 533.

[4]Charles P. Loomis, Social Systems (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1960), p. 8; p. 11.

[5]Charles P. Loomis and Zona K. Loomis, Modern Social Theories (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1961), Chapter II - Chapter VII.

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Other social scientists who have dealt with a concept which might be considered very close to or to include our theoretical definition of belief are G.W. Allport, Leon Festinger, Abelson and Rosenberg, Fritz Heider, Krech and Crutchfield, Gardner Murphy, et al., Tolman, Thurstone, Rokeach, and others.[1]

Theoretical Definition

Belief will be considered as an individual's perception of anything he or she considers true or false. It can be related to but does not include feelings or sentiments.

Operational Indicators of the Theoretical Term

Any statement which a person says that he considers true or false.

Some Assumptions Related to These Definitions

Perception indicates some neurological phenomena which is present within the brain of a person or persons. As used here this mental cognition is assumed to be a capacity to apply labels,

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[1]Gordon W. Allport, Personality and Social Encounter, Selected Essays (Boston: Beacon Press, 1960), p. 178; Leon Festinger, Introduction to a Theory of Cognitive Dissonance (Evanston, Illinois: Row-Peterson, 1957), p. 3; R.P. Abelson and M.J. Rosenberg, "Symbolic Psychologic: A Model of Attitudinal Cognition," Behavioral Science, Vol. 3 (1958), p. 2; Fritz Heider, The Psychology of Interpersonal Relations (New York: John Wiley and Sons, Inc., 1959), p. 13 ff; David Krech and Richard S. Crutchfield, Theory and Problems of Social Psychology (New York: McGraw-Hill Book Company, Inc., 1948), p. 151; Gardner Murphy, Lois Barclay Murphy, and Theodore M. Newcomb, Experimental Social Psychology (New York: Harper and Brothers, 1937), p. 889; p. 890; Edward C. Tolman, "Cognitive Maps in Rats and Men," Psychological Review, Vol. 55, No. 4 (July 1948), p. 208; L.L. Thurstone, The Measurement of Values (Chicago: The University of Chicago Press, 1959), p. 216; Milton Rokeach, The Open and Closed Mind (New York: Basic Books, 1960), p. 31; Martin Scheerer, "Cognitive Theory," Handbook of Social Psychology, ed. by Gardner Lindzey, (Reading, Massachusetts: Wesley Publishing Company, Inc., 1954), pp. 91-142.

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traits, or specify relations in reference to objects, other people, the self, words, other beliefs, social relations and any other "actual" or "imagined" phenomena within the universe. This does not deny the possible existence of an actual distinction between that which is perceived and that which is believed. However, such a consideration will not be considered strongly relevant for the research undertaken at this time.

Truth or falsity is taken to mean a person's acceptance or rejection of any considered phenomena. It is not considered that a belief as theoretically defined above be necessarily stated by the individual. Neither is it maintained that the operational definition is necessarily a one to one correspondence with the theoretical definition. Human beings apparently can and do lie about what they accept as true or false. However, this does not prevent them from having a belief about the pervarication.

Relation Between Belief as Used Here and Some Other Concepts

Belief is considered as a "broad" concept under which will be included the following that will be regarded as generally veridical manifestations of belief.

1. Descriptive statements about those things that are directly empirically observable such as: "Job A pays more than job B." or "Job A requires more years of training than job B."

2. Descriptive statements about those things that are not directly empirically observable but for which evidence may be collected to support or refute such as: "Jim likes job B better than job A." or "Cleanliness in a job has some intrinsic unobservable goodness over a 'dirty' job."

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It will be noted that the latter example maintains some unobservable characteristic (goodness) of cleanliness. This is the same as Adler's type B concept of value or Kluckhohn's "cognitive" or conception aspect of value.[1] While the writer does not hold that such traits of goodness exist in objects or in traits of objects it is recognized that many members of societies do.

3. Prescriptions or proscriptions which are statements maintaining the desirability or undesirability of some action or state of affairs such as: "A parent should want a job for his son of higher rank than his own in the society." or "You ought not to tell an interviewer your father's occupation."

These will be recognized as rules for behavior or the cultural norm of Horton and Hunt, the "value" or standard of H.M. Johnson, the norm of R. Bierstedt, the standard of Clyde Kluckhohn, et al., the rules of conduct of R. Williams, the "verbal description of concrete action combined with an injunction to make certain future actions conform to this course" of T. Parsons, the norm of G. Homans, the rules, regulations, laws, or standards of C. Loomis and others who have described this characteristic of prescriptive or proscriptive statements.[2]

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[1]Franz Adler, "The Value Concept in Sociology," American Journal of Sociology, Vol. 62 (Nov. 1956), pp. 272-279; Clyde Kluckhohn, et al., "Values and Value Orientations in the Theory of Action," Toward a General Theory of Action, ed. by Talcott Parsons and Edward A. Shils (Cambridge: Harvard University Press, 1951), p. 395.

[2]Paul B. Horton and Chester L. Hunt, Sociology (New York: McGraw-Hill Book Company), p. 57; Harry M. Johnson, Sociology: A Systematic Introduction (New York: Harcourt, Brace, and Company, 1960), p. 49; Robert Bierstedt, The Social Order (New York: McGraw-Hill Book Company, 1957), p. 175; Clyde Kluckhohn, Toward a General Theory of Action, p. 400; R. Williams, American Society, p. 25; Talcott Parsons, The Structure of Social Action (Glencoe, Illinois: The Free Press, 1949), p. 75; George C. Homans, The Human Group (New York: Harcourt, Brace, and Company, 1950), p. 123; C. Loomis, Social Systems, p. 17; C.P. Loomis and Z.K. Loomis, Modern Social Theories, p. 41; p. 268; p. 449.

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Two points are of major significance to the concept presented here. The first is that beliefs stated in prescriptive or proscriptive statements may have, but do not necessarily have to have the other attributes attached to them as indicated by several of the writers cited. For example, Parsons indicates for his purposes in one of his works that a sentiment is involved in his concept of normative.[1] It is not that sentiment cannot be attached to a normative statement but rather that there are times when it is not attached that constitutes the theoretical importance of this distinction. We can all cite rules for the behavior of members of some group without our having any sentiment attached to these rules. The prescription in factory X that: "One should use four nails at each corner of a box." will likely elicit little positive or negative feeling from the present readers.

The second point is that while this author agrees with Lundberg that all prescriptive and proscriptive statements can be changed into "if . . . then" statements which can be considered either probable or improbable by gathering evidence about them it is sometimes the case that the speaker of such statements does not, cannot, or will not supply the premises which are the necessary and sufficient conditions for doing so.[2] When this happens the person can be making a comparison based upon some non-observable scale of goodness and badness. For example: "Humans ought not to go to the moon." Assume no reason is given. It is just considered an undesirable type of behavior based upon the non-observable

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[1] T. Parsons, The Structure of Social Action, p. 75.

[2] George Lundberg, "Semantics and the Value Problem," Social Forces, Vol. 27 (1948), pp. 114-116.

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goodness and badness scale. Of course, other reasons might be given such as an appeal to scripture or tradition which represent observable evidence that may or may not support the proscription but still does not eliminate the use of the non-observable scale. This type of belief has been called a value judgment by some and in this form is identical with the second example under type II above.

Alternatives of Action

Beliefs may include beliefs about possible alternatives. The "selection" of one of any set of mutually exclusive courses of action represents some set of beliefs as held by the individual making the "selection." It is beyond the scope of this proposal to attempt to establish how any individual might "select" any certain set of alternatives as possible so we will attempt to elicit these sets from our subjects as they give them to us. Loomis' "facilities," Parsons' "means," and Thomas and Znaniecki's "definition of the situation"[1] all have certain elements that would fall within this category of subjective alternatives as seen by the individual. Although those "conditions" of action over which the actor has no control will probably influence the set of alternatives selected by him it does not seem necessary, at this point, to separate them from those ("means" in Parsons' terms) over which the actor does have some control.

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[1]C. Loomis, Social Systems, p. 27; T. Parsons, The Structure of Social Action, p. 44; W.I. Thomas and Florian Znaniecki, The Polish Peasant in Europe and America (Chicago, Illinois: The University of Chicago Press, 1918), p. 39.

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The Anticipated Results of Action -- Ends or Goals

Another category of alternatives which can be placed under beliefs as a special case is that of ends, goals, or objectives. As Loomis[1] mentions in referring to Merton and Sorokin, a distinction may be made between subjective predispositions and objective consequences. It would seem that we have two distinct predictions and/or explanations that we may or may not make depending upon the particular time period over which we wish to predict or explain. The first refers to the behavior of our actor or actors within their "definition of the situation" at time one (t_1). The second refers to the behavior of our actor or actors after they have come into contact with a situation which is quite different from the previously anticipated results of their action.

In order to correctly predict behavior at t_2 we, as researchers, have at least two alternatives. We can assume that our actors will feel the same or very similar about the relevant factors at t_2 as they do at t_1 and observe their behavior or we can develop some theory of change to predict how our actors will define the situation at t_2 if they defined the situation at t_1 in some specific way. Suppose that we know from past performances that 95% of those factory workers who had no source of income from other than their factory job and who expressed a choice to be in a "business of their own" over that of their present job had not, in fact, made this choice some three years later. If we can present to him at t_1 those alternatives that the factory worker is likely to perceive at t_2, we may be able to obtain an indication of what

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[1] C. Loomis, Social Systems, p. 15.

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his decision will be at t_2. This assumes that his feelings toward the alternatives do not change too much. What is "too much?" "Too much" is when our predictions fall below our accepted standard of accuracy.

Although not identical, the foregoing position bears some of the characteristics of that held by Thomas and Znaniecki when they maintain ". . . social theory and social practice have forgotten to take into account one essential difference between physical and social reality, which is that, while the effect of a physical phenomenon depends exclusively on the objective nature of this phenomenon and can be calculated on the ground of the latter's empirical content, the effect of a social phenomenon depends in addition on the subjective standpoint taken by the individual or the group toward this phenomenon and can be calculated only if we know, not only the objective content of the assumed cause, but also the meaning which it has at the given moment for the given conscious beings. Our position would not separate the logical structure of prediction and/or explanation for the physical as compared with the social sciences, but we would agree with Thomas and Znaniecki when they point out that a work of art (the objective factor) does not influence individuals uniformly. Hence, the necessity to consider the objective and subjective "causes."[1]

While ends are here regarded as some future state of affairs which the actor may or may not bring about as the resultant of some action upon his part, their separation from means is made only in the sense that the actor or actors recognize such a distinction at some given time. We, therefore, maintain that the prediction of objective

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[1] W.I. Thomas and F. Znaniecki, The Polish Peasant in Europe and America, p. 39.

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consequences of action at t_1 to t_8 will require an assessment of how the objective situations will be redefined by those actors as they encounter various subjectively viewed alternatives throughout the time period between t_1 and t_2, t_2 and t_3, etc. If we, as sociologists, happen to know the feelings of the actors under study toward alternatives at t_1 . . . t_8, then we may better predict the outcome at t_8 from knowing what will happen at t_7 than by our or the actor's knowledge at t_1. We have, at least, two difficult problems: (1) the statement of the relevant variables and, (2) the statement of the relations between these variables.

For the purposes of testing some parts of the theory presented here we will tentatively consider a person's statement of belief about action to be fairly highly related to actual behavior. If it can be shown that sentiments, as discussed below, are related to a person's statements about intended action, then a further investigation into the relationships between statements about intended action and actual behavior could be conducted using the same theoretical framework. Even though the degree of relationship between people's statements about their actions and their observed behavior is an important area of research this study will not dwell upon this type of an investigation.

Sentiment

Use of Similar Concepts by Some Other Authors

This or related concepts perhaps have as wide and varied a history as that of belief and its related ideas. Hence, a sampling of its usage is all that is possible or considered required for the purposes of this research. It will be noted that in most cases the concept of motivation is mixed with that of sentiment or "pleasure."

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John Watson in his Hedonistic Theories from Aristippus to Spencer critically surveys ideas of pleasure, pain, sentiment, and related concepts of Aristippus, Epicurus, Hobbes, Locke, J.S. Mill, and Spencer.[1] As Watson portrays those theories of "human nature" there is a change in emphasis from the ideas of pain and pleasure toward those of "good," "bad," and "justice." Although other ideas such as the basis for the formation of society considering the assumption of man's innate "selfishness" provides a thread of continuity such a problem is not in the purview of this study.

Kauder gives credit to Aristotle for creating the concept of "value in use," and to Aquinas, Henry of Ghant, Johannes Buridanus, and Leonardus de Leasius for retaining this utility concept.[2] Here is only one historic connection between sentiment and utility in past and current economics.

Jeremy Bentham's bluntly stated view that man's "two sovereign masters" were pain and pleasure is closely allied with his "principle of utility."[3] Adam Smith's distinction of "value in use" versus "value in exchange" and his admonition to appeal to self interests of the butcher, baker, and brewer are hardly much different from

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[1]John Watson, Hedonistic Theories from Aristippus to Spencer (New York: Macmillan, 1895), p. 23; p. 48; p. 59; p. 73; p. 95; p. 102; p. 160; p. 180.

[2]E. Kauder, "Genesis of the Marginal Utility Theory from Aristotle to the End of the Eighteenth Century," Economic Journal, Vol. 63 (1958), pp. 638-650.

[3]Jeremy Bentham, The Works of Jeremy Bentham, published under the superintendence of his executor John Bowring (Edinburg, London: W. Tait, Simpking Marshall Company, 1843), p. 1.

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Bentham's hedonism.[1] Comte's emphasis upon observation similar to that used in other sciences, together with his view that the intellectual processes were, at that time, incapable of being observed was a position leading away from serious consideration of the part played by sentiments.[2] Nevertheless he did not ignore sentiments or emotional processes as factors in human behavior.

One of the principal assumptions used by Sumner in his Folkways was that man had the psychical ability to distinguish between pleasure and pain. Such forces were considered to be instrumental in producing habit in the individual and custom in the group. He also indicates that the mores ". . . rest on feelings of pleasure or pain . . ."[3]

Sumner's use of the term sentiment is illustrated by referring to "loyalty," "sacrifice," "hatred," and "patriotism" while maintaining that sentiments are produced he does not specify their precise relationship to feelings of pleasure or pain. His use of sentiments and interests both appear to be close to the way the concept sentiment will be used in this study.[4]

Pareto's use of the term sentiment tended to be equated with instinct[5] or, as the translator identified them, with sensation,

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[1]Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations (London: J.M. Dent and Sons Ltd., 1911), p. 13; p. 24; p. 25.

[2]A. Comte, The Positive Philosophy of Comte, pp. 9-10.

[3]W.G. Sumner, Folkways (New York: The New American Library of World Literature, Inc., Mentor Book Edition, 1960), p. 18; p. 19; p. 20.

[4]Ibid., p. 27; p. 29.

[5]V. Pareto, The Mind and Society: A Treatise on General Society, Vol. 1, p. 511.

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preconception, and inclination. Although Pareto's implications for the inherited nature of some sentiments is at variance with the usage made here his view concerning their "motivating" force is shared with the writer, as will be observed in a later section.[1] Weber's consideration of "subjectively meaningful action," and the "understanding" of "motives" can be placed within the theoretical framework described here.[2] No change is needed to consider the sense in which both belief and sentiment are subjective. However, it is necessary to look at the two different senses in which meaningful would be interpreted. One would be as a belief about some goal, means, or norm, and the other would be the sentiment experienced by the actor toward an object.

Alexander Bain distinguished "feeling," "volition," and "intellect" as three properties of the "mind."[3] He considered feeling to comprise all pleasures and pains with every volition containing some feeling. William McDougall rejected Bain's and Spencer's use of the pleasure-pain doctrine and Locke's tabla rasa.[4] The idea that the joy of a mother from her child could be derived from her contact with it seemed "absurd." Instead he substituted instinct, emotion, and Shand's definition of sentiment. As given by McDougall sentiment was ". . . a system of nerve paths by means of which the disposition of the idea of the object of the sentiment is functionally

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[1] Ibid., Vol. 2, p. 2016; p. 1736.

[2] M. Weber, Basic Concepts in Sociology, p. 29; p. 35.

[3] Alexander Bain, Emotions and the Will (Third Edition; New York: Appleton and Company, 1888), p. 3.

[4] William McDougall, An Introduction to Social Psychology (Boston: W. Luce and Company, 1926), p. 16; p. 45 footnote; p. 51; p. 59; p. 64.

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connected with several emotional dispositions."[1] Although the main purpose here is not to give detailed analyses of these writers' theoretical systems it would appear that some of the elements of those systems might be equated. McDougall's view of sentiment is similar to Bain's view of the acquired character of some "emotions."[2] However, McDougall did criticize introspection by regarding it as only a preliminary part of psychology.[3]

Murray's analysis of "secondary" or "psychogenic needs" bears a resemblance to the positive and negative sentiment as used here.[4] He tends to place more emphasis upon "instinct" and the tendency of these "needs" to lead the subject to "approach" or to "separate" himself from an object than is assumed in this study in either the theoretical or operational definition.

Fritz Heider refers to sentiment as: ". . . the way a person P feels about or evaluates something."[5] The first portion of this statement refers to the definition of sentiment as used here and the last part refers to what has been defined earlier as belief.

A contemporary sociologist, George Homans, has given one meaning to the term sentiment which is very close to the usage in this study. In his book The Human Group he says,

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[1] Ibid., p. 130.

[2] A. Bain, Emotions and the Will, p. 58; p. 15.

[3] W. McDougall, An Introduction to Social Psychology, p. 130.

[4] Henry A. Murray, "Types of Needs," Studies in Motivation, ed. by D.C. McClelland (New York: Appleton-Century-Crofts, Inc., 1955), p. 63; p. 66; p. 67.

[5] F. Heider, The Psychology of Interpersonal Relations, p. 174.

> Now let us go back to our passage again and consider another set of words and phrases: sentiment of affection, affective content of sympathy and indulgence, intimate sympathy, respect, pride, antagonism, affective history, scorn, sentimental nostalgia. To these we shall arbitrarily add others, such as hunger and thirst, that might easily have come into the passage. What can we say these words have in common? Perhaps the most we can say, and it may not be very much, is that they all refer to internal states of the human body. Laymen and professional psychologists call these states by various names: drives, emotions, feelings, affective states, sentiments, attitudes. Here we shall call them all sentiments, largely because that word has been used in a less specialized sense than some of the others, and we shall speak of sentiment as an element of social behavior.[1]

To the extent that the feeling and not belief is involved then the two conceptualizations agree.

Charles Loomis considers the concept of sentiment one of the elements within the social system.[2] While Professor Loomis indicates that sentiments are combined with belief in the empirical world even though analytically separate the theoretical view taken here is that there are times when they are also empirically separate. If there were not times when belief and sentiment were empirically separate, then strict objectivity and much of what is considered science would seem to be theoretically impossible.

Kingsley Davis tends to base the formation of values upon sentiments. In developing the relation between sentiments, values, and ends, he says,

> In due time we shall discuss the sources of ends, but for the moment it is sufficient to note that ends are chosen. They are chosen with reference to values in the first place. A value is that which is considered desirable, which is thought worthy of being pursued regardless of whether or not it is actually being pursued. In a given situation it influences what

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[1] G. Homans, The Human Group, p. 37; p. 38.

[2] C. Loomis, Social Systems, p. 13.

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> is chosen as an end. The source of the value in turn lies chiefly in the sentiments . . . Such feelings arise partly from organic urges, partly from internalized norms. The transition from sentiment to value, to end is one of increasing specificity. In a sense the end is the particular application of a sentiment or value to a given situation as perceived by the actor.[1]

A similarity between the causal nature of sentiment as used by Davis and as used in this study will be noted in the section which hypothesizes the relationship between sentiment, belief, and behavior in social situations.

One other usage of the term is in Shibutani's Society and Personality.[2] However, we do not define sentiment as he does. In addition to considering sentiment as an organized disposition to act he limits it to being directed toward people.

As used by many writers the concept of attitude often contains within it both the likes and dislikes that we have been considering sentiment, and the individual's perception of what is considered true or false. In this respect attitude combines both belief and sentiment.[3] Since the degree or amount of sentiment is considered to be related to behavior, in this thesis, and no corresponding relationship is posited for the association between belief and behavior. It is considered theoretically and empirically important that belief and sentiment not be combined under a single term such as attitude. Hence, we think that most of those variables usually considered under the concept of attitude are included within the theoretical framework

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[1] K. Davis, Human Society, p. 124.

[2] Tamotsu Shibutani, Society and Personality (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961), p. 332.

[3] Bert F. Green, "Attitude Measurement," Handbook of Social Psychology, edited by Gardner Lindzey, p. 336.

presented here even though no attempt is made to formulate a one to one correspondence between them as they are described by various theorists.

Theoretical Definition

Sentiment will be considered as a person's positive or negative mentally perceived feeling about any object, person, social relation, word, behavior or any other perceived phenomena.

In this study any statement which the person answers saying he feels that he likes one job or the means to acquire a job or combination of jobs and means will be considered as an indication of sentiment.

Some Assumptions Related to These Definitions

In making the theoretical definition we assume that human beings are capable of having positive, negative, or neutral feelings. We also assume that humans can hold them individually or in common with others. Positive, negative, or no sentiment may be stimulated by objects which are "external" to the individual or by beliefs which, at times, could be considered "internal." As considered here the "external" stimuli of social objects and, in particular, job prospects and how to get these jobs are most relevant. While it is assumed that they may be able to exist independent of any belief.

Although having little effect upon the main hypothesis to be presented later it is also maintained that most, if not all, sentiments are acquired after birth. As operationally defined it is recognized that the verbal expression of sentiment can be in error as the result of inability or lack of desire of the subject to express it veridically to the interviewer. Since it is maintained that

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respondents may have little or no sentiment toward some occupations there are likely to be times when an attempted measure of sentiment toward several objects will lack transitivity.

Reference Groups

As with alternatives for behavior, means, or goals these groups of people which an individual uses ". . . as a frame of reference against which to test the appropriateness of (his) values, attitudes, aspirations and behavior . . ."[1] are a source of beliefs and sentiments. In attempting to consider as many factors as possible that go into the decision-making of a person we will attempt to have respondents weigh the effects of a reference group in addition to the effects of goals and means. Whether this added variable has its effect before or after the selection of alternates, or both, is a question that can only be answered by empirical studies.

Suggested Interrelation of Variables

Decision-Making in Social Situations

Among those who have been concerned with selection, choice, decision, and other similar behavior as performed by human beings both in and outside of social relationships are T. Parsons, W.I. Thomas, and F. Znaniecki, K. Davis, G. Homans, and C. Loomis.[2] In this study we are more concerned with how these selections are made than with the specific mechanism involved.

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[1] John Gullahorn, Mimeographed paper.

[2] T. Parsons, The Structure of Social Action, p. 77 ff; W.I. Thomas and F. Znaniecki, The Polish Peasant in Europe and America, p. 39; G. Homans, The Human Group, p. 118; C. Loomis, Social Systems, p. 8.

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It is with regard to the alternative outcomes of the "selection" process that we are attempting to investigate its prediction and/or explanation as actors (individuals, persons, human beings) relate themselves and are related within the social situation. First, we maintained that actors possess sentiments toward social and non-social objects. Secondly, we considered beliefs as possible objects for the attachment of these sentiments. Next, we considered means as possible alternate behavior patterns in some given social situation where these alternate choices are regarded as instrumental in attaining some desired state of affairs.

Hypotheses

1. When all sentiments toward alternatives are positive. -- When individuals believe they must make a choice among several alternatives, the likelihood of choosing a given alternative will be directly related to the strength of sentiment toward that alternative.

2. When all sentiments toward alternatives are negative. -- When individuals believe they must make a choice among several alternatives, the likelihood of choosing a given alternative will be inversely related to the strength of negative sentiment toward that alternative.

3. When sentiments toward alternatives are both positive and negative. -- When individuals believe they must make a choice among several alternatives, there will be a greater likelihood of choosing the alternative to which is attached the greatest positive sentiment or to which is attached the least negative sentiment that results from the algebraic summation of positive and negative sentiments.

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These hypotheses assume that: (1) people can and do algebraically add their plus and minus feelings about any given alternative; (2) this psychological comparison process can be reasonably well uncovered and "duplicated" by the research investigator; (3) people can and do algebraically compare various alternatives in terms of their net sentiments regarding each; (4) this process also can be approximated in an interview or questionnaire situation.

Although the association between sentiment and selection of an alternative is here conceived as if sentiments are causal forces in the determination of choice, the difficulty of demonstrating such a relationship is recognized. An association between the variables of sentiment and choice could just as well be the result of choice influencing the attachment of sentiment to an alternative.

One problem lies in the establishment of a satisfactory meaning of "cause" as it is used in scientific explanation.[1] Our minimal requirement is that "cause," as used in the foregoing statements, suggests that sentiment and choice behavior occur together with a high degree of regularity. To this limited meaning other criteria such as which happened first could be added later if there were some evidence that sentiment and choice consistently occurred together. However, within this study no attempt will be made to establish more than an association between the variables.

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[1] A.C. Ewing, "Cause," The Structure of Scientific Thought, edited by Edward H. Madden (Cambridge, Massachusetts: The Riverside Press, 1960), pp. 208-215.

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Secondly, the association of sentiment and choice could also be the result of choice influencing the attachment of sentiment to an alternative. Such a relationship could either be the result of choice behavior determining sentiments or of choice putting people into a social situation whereby an additional set of sentiments is stimulated or associated with the selection made.

Rosenberg's study of a sample of about 4,500 college students produced some findings that would support either hypothesis. His results showed that 26% of those who expressed a fairly constant set of values at different times had changed their occupational preference toward a job consistent with those values, whereas 11% of those with a constant occupational choice at both times switched to value preferences consistent with the occupation.[1] Those 11% who maintained the same occupational choice and changed their value preference during this longitudinal study would be evidence to support the hypothesis that this choice behavior had influenced their stated values. It is equally as valid to observe that those 26% who maintained the value preferences but changed their occupational choice so that it seemed more consistent with these value preferences would be somewhat greater evidence to support the hypothesis that values had influenced this change in occupational choice.

Therefore, I wish to emphasize that while my preference is with the view that sentiments are more correctly viewed as influencing choices than vice versa, the design of this study will not show

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[1]Morris Rosenberg, et al., Occupations and Values (Glencoe, Illinois: Free Press, 1957), p. 22.

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if the sentiment measure was present before or after job choice was made. Another limitation in any analysis is that a third unrecognized variable could be responsible for the occurrence of both sentiment and choice. Such restrictions are not the burden of just this investigation. They are ever present in all research.

Relation to Similar Theoretical Statements

As may be observed in the brief discussion of the history of the concepts of belief and sentiment there are also a large number of propositions of a similar nature that are aimed at specifying how or "why" humans make decisions as they do.[1] Following are views from a number of social scientists with more or less precise propositions and ideas similar to the one presented above with brief comments on some of their similarities and differences. It is not implied that these statements represent the complete thought of the authors or are necessarily different or identical with the one presented above. They are presented for comparison and evaluation and to indicate a basis for the development of theory and research.

Bentham's statement that, "Nature has placed mankind under the governance of two sovereign masters, pleasure and pain."[2] is in several ways similar to the main hypotheses. If "governance" be equated with "decision-making mechanism" and "pleasure" and "pain" be respectively equated with positive and negative sentiment, then perhaps the greatest difference between the two positions taken is Bentham's view that proof or evidence for the principle is both

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[1] G.W. Allport, Handbook of Social Psychology, pp. 10-13.

[2] J. Bentham, The Works of Jeremy Bentham, pp. 1-4.

impossible and needless. Various forms of this major proposition are later identifiable in the works of those who have been called English Utilitarians.[1]

Pareto specifically named sentiments as forces in "persuading" human beings. He equates sentiments with residues.

> Human beings are persuaded in the main by sentiments (residues) and we may therefore foresee, as for that matter experience shows, that derivations derive the force they have, not or at least not exclusively, from logico-experimental considerations but from sentiments.[2]

If we can assume that a persuaded human has selected some alternative, then we can say that Pareto also hypothesized a relationship between sentiments and behavior.

Marshal at one time considered total utility to be "the total pleasure of a thing for a person" and utility "to be correlative to Desire or Want."[3] To the extent that utility refers to the capacity of objects to stimulate positive and negative sentiments it can be considered as related to which of the alternatives would be chosen. According to Kauder the related concept of marginal utility gained acceptance by economists in its being connected with a hedonistic pain and pleasure calculus.[4] Samuelson explains utility and some of its assumptions in this way:

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[1] Ernest Albee, A History of English Utilitarianism (London: Allen and Unwin; New York: Macmillan, 1957), p. 65; p. 167; p. 206; p. 216; p. 251.

[2] V. Pareto, The Mind and Society, p. 885.

[3] Alfred Marshal, Principals of Economics (London: Macmillan and Company, 1947), pp. 92-93.

[4] E. Kauder, "The Retarded Acceptance of the Marginal Utility Theory," Quarterly Journal of Economics, Vol. 67 (1953), pp. 564-575.

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> The utility analysis rests on the fundamental assumption that the individual confronted with given prices and confined to a given total expenditure selects that combination of goods which is highest on his preference scale. This does not require
> (a) that the individual behave rationally in any other sense;
> (b) that he be deliberate and self-conscious in his purchasing;
> (c) that there exist any intensive magnitude which he feels or consults.[1]

One main difference between this set of statements and the decision-making hypothesis is that the latter attempts to specify and measure the preference scale by the ranking of sentiments. Another is that an intensive magnitude is hypothesized as being felt and that "rationality" is not considered a necessary concept for explaining man's behavior. A third point is that considering man in a social environment of groups, roles, norms, and statuses is likely to multiply the alternate choices for any individual over an extended time period.

A few of the numerous psychologists and behavioral scientists whose theoretical orientations have been sometimes peripheral and at other times central to the selection of alternatives are: Freud, Combs and Snygg, Edwards, Leeper, Marschak, McClelland, et al., Murray, Peak, Siegel, and Young.[2] Although the central hypothesis of this

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[1]Paul A. Samuelson, Foundations of Economic Analysis (Cambridge, Massachusetts: Harvard University Press, 1947), pp. 97-98.

[2]Sigmund Freud, Beyond the Pleasure Principle, trans. by James Strechey (New York: Liveright Publishing Corporation, 1950), p. 86; C.W. Combs and D. Snygg, Individual Behavior: A Perceptual Approach to Behavior (Revised Ed.; New York: Harper and Row, 1959), p. 20; p. 46; Ward Edwards, "The Theory of Decision-Making," Psychological Bulletin, Vol. 53 (Jan., 1948), pp. 5-21; Jacob Marschak, "Actual Versus Consistent Behavior," Behavior Science, Vol. 9, No. 2 (1964), pp. 103-110; D.C. McClelland, et al., The Achievement Motive (New York: Appleton-Century-Crofts, 1953), p. 30; H. Murray, Studies in Motivation, p. 66; Helen Peak, "Comments on Professor Young's Paper," Nebraska Symposium on Motivation (Lincoln: University of Nebraska Press, 1955), pp. 238-240; Edward C. Tolman, "A Psychological Model," Toward a General Theory of Action, ed. by Talcott Parsons and Edward A. Shils, pp. 279-360; Sidney Siegel, et al., Choice, Strategy, and Utility, (New York: McGraw-Hill Book Co., 1964), 1 ff; Paul T. Young, Motivations and Emotions (New York: John Wiley and Sons, 1961), p. 255.

thesis is in agreement with most of these theorists in emphasizing the causal nature of sentiment or a similar concept under another label some of the differences may be relevant for prediction and/or explanation. The theoretical framework presented does not incorporate Freud's assumption of a "universal endeavour of all living substance -- namely to return to the quiescence of the inorganic world."[1] It seems to be in no conflict with Combs and Snygg's "perceptual field determination" of man's behavior but does not assume that man's "basic need" is adequacy.[2]

Edwards in observing the notional of utility is very similar to the Lewinian notion of valence has suggested the experimental study of valences as the experimental study of utility. If sentiment and utility have a functional relationship, then the decision-making hypothesis and related assumption that man can give his preferences of A over B, or B over A, or is indifferent to them is consistent with one of Edwards' requirements of "rationality."[3] It is not, however, assumed that choices could not be made randomly based upon some sentiment toward finishing the questionnaire or to please the experimenter by putting "something" on the paper. One point which may or may not be a distinction between the maximization assumption of utility theory and the hypothesis proposed here is that the latter does not imply that the goal is always, as Friedman and

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[1] S. Freud, Beyond the Pleasure Principle, p. 86.

[2] A.W. Combs and C. Snygg, Individual Behavior, p. 20; p. 46.

[3] W. Edwards, "The Theory of Decision-Making," p. 381; p. 389.

Savage state, ". . . to make its expected utility as large as possible."[1] Another difference is that the studies cited here have dealt mainly with laboratory choices involving the selection of a series of wagers generally involving some probability consideration on the part of the subjects.[2] This should not be taken to mean that laboratory experiments are invalid or not useful. However, a different social context can stimulate additional sentiments and beliefs.

The "secondary or psychogenic needs" as divided by Murray into positive and negative seem to have a conceptual commonality with positive and negative sentiment even though he emphasizes biological drives and equilibrium much more than is done here.[3]

There is also a similarity between the emphasis put upon the part played by affective processes by P.T. Young and Helen Peak and the causal nature of sentiment as hypothesized throughout this discussion.[4] P.T. Young has been one of the stronger advocates of the central role of affective processes in motivation and has incorporated the studies of James Olds into his latest text. Still he has not ignored social factors as is shown by the following:

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[1] M. Friedman and L.J. Savage, "The Utility Analysis of Choices Involving Risk," Journal of Political Economy, Vol. 56 (1948), pp. 279-304.

[2] F. Mosteller and P. Nogec, "An Experimental Measurement of Utility," Journal of Political Economy, Vol. 59 (1951), pp. 371-404; S. Siegel, et al., Choice, Strategy, and Utility, p. 1 ff; J. Marschak, "Actual versus Consistent Behavior," pp. 103-110.

[3] H.A. Murray, Studies in Motivation, p. 63; p. 66.

[4] P.T. Young, Motivations and Emotions, p. 255; H. Peak, Nebraska Symposium on Motivation, pp. 238-240.

> Sociologists and anthropologists have taught us that a man's behavior, to a high degree is determined by the social and cultural environment into which he happens to be born and within which he develops.[1]

One major disagreement is that while Young does not consider socio-cultural determinants of action to be "motives in the usual sense of the word" we have maintained that beliefs and sentiments about social factors do, in fact, make them "motivating" factors.[2]

Sociologists whose writing originally stimulated the author's thinking in connection with selection, choice, and decision-making are W.I. Thomas and F. Znaniecki, G. Homans, K. Davis, T. Parsons, and C. Loomis. The influence of the subjective upon individuals as stated by Thomas and Znaniecki, the balancing of reward and cost as seen by Homans, the view that goals are chosen as the result of value and sentiment as posited by K. Davis, the emphasis upon choices in the "theory of action" by Parsons, and decision-making regulated by norms in Loomis' "Processually Articulated Structural Model" all hold in common the elements of the human actor being faced with a demand to choose alternatives within a social situation.[3] Any improvement in the ability to predict these actions will increase the predictability of social behavior and the form social groups will take under specified conditions.

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[1] P.T. Young, Motivation and Emotions, p. 20.

[2] Ibid., pp. 21-22; p. 194.

[3] W.I. Thomas and F. Znaniecki, The Polish Peasant, p. 39; George Homans, Social Behavior: Its Elementary Forms (New York: Harcourt, Brace and World, Inc., 1961), p. 61; K. Davis, Human Society, p. 124; Talcott Parsons, Edward A. Shils, and James Olds, "Values, Motives, and Systems of Action," Toward a General Theory of Action, ed. by T. Parsons and E.A. Shils, pp. 47-243; C.P. Loomis, Social Systems, p. 22.

Occupational Selection

Theoretical Orientation and Related Research

Our generalized type statement predicting which of two alternatives will be selected could conceivably be tested in most areas of human behavior. In this study the area picked is vocational or occupational choice.

Sociologists, psychologists, economists, and guidance counselors have shown an interest in the problems involved in predicting who will be in certain occupational categories. The complexity of occupational prediction was elaborated in what Blau, together with psychologists and economists, called a "conceptual framework" of occupational choice.[1] In recognizing that occupational choice is not the result of a single decision at one single time they suggest such personality development variables as family influences, availability of financial resources, and the effects of education combining with socio-psychological, socio-economic, and historical variables to produce the immediate determinants of vocational selection. Choice is viewed as the result of how these factors influence the individual to observe and evaluate alternatives. The individual's evaluation of the rewards attached to the alternatives and his estimate of his likelihood of realizing each of the alternatives are seen as motivating elements in the choice situation.

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[1] Peter M. Blau, John W. Gustad, Richard Jessor, Herbert S. Parnes, Richard Wilcock, "Occupational Choice: A Conceptual Framework," Industrial and Labor Relations Review, Vol. 9, No. 4 (July, 1956), pp. 531-543.

Blau, et al.'s paper illustrates a convergence of sociologists' and economists' emphasis upon social structural factors and the psychologists' greater concern with individual or personality variables. Such convergence may represent a partial agreement that certain factors are influential in the determination of human behavior without agreement about their origin or degree of importance. Both Thorndike's view in 1940 that Anthropology and History may have more to offer Psychology than it might give in return and Super's elaboration of vocational development in the 1950's suggest a growing recognition of the longitudinal nature of occupational involvement.[1]

One major point of partial agreement between some contemporary psychologists and sociologists is their use of stages or developmental periods in their discussion of "models" of occupational behavior. In illustrating the numerous decisions that go into an individual's getting into an occupation Ginzberg, et al. have considered choice determination which they label as fantasy choices, tentative choices, and realistic choices.[2] While these work periods of preparatory, initial, trial, stable, and retirement are not regarded as occupying the identical age span in each person's life nor do Miller and Form maintain that everyone goes through all of them, they do represent a framework around which many socialization and social structural variables may be arranged.[3]

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[1]E.L. Thorndike, Human Nature and the Social Order (New York: The Macmillan Company, 1940), p. v; Henry Borow, "Milestones: A Chronology of Notable Events in the History of Vocational Guidance," Man in a World at Work, ed. by Henry Borow (Boston: Houghton Mifflin Company, 1964), p. 60.

[2]Eli Ginzberg, Sol W. Ginsburg, Sidney Axelrad, John L. Herma, Occupational Choice: An Approach to a General Theory (New York: Columbia University Press, 1951), p. 71.

[3]Delbert C. Miller and William H. Form, Industrial Sociology (New York: Harper and Brothers, 1951), p. 535; p. 712.

Emphasis upon the developmental aspect of occupational choice as the development of self in relation to the work role is seen in a monograph by Professor Super and his collaborators. In this monograph Super reviews five studies showing various degrees of relationship between the agreement of self-concept with occupational role concept and such variables as job satisfaction, occupation preference, and realism of vocational choice.[1] Although he acknowledges that the degree of relationship is not exceedingly great he considers most of them to be in the predicted direction. Implied within this comparison of the self-concept with the work role concept is the unstated hypothesis that the self-concept is a motivating force for actions taken.

A somewhat similar relationship is described from a social psychological viewpoint by Professor Faunce in defining alienation as "a disjuncture between self-esteem maintenance and status assignment systems." Where such a lack of alignment exists Faunce suggests that the individual may be motivated to seek other groups or audiences as significant others for testing his self-esteem. He points out that "a worker on an assembly line who sees blocked mobility in work may evaluate self in non-work terms and probably not be motivated to contribute to major goals." For those individuals who see themselves as a failure in a social role that is important to maintaining self-esteem, Faunce predicts change as likely. Faunce's statements could also be considered as hypotheses that might be useful in the prediction

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[1] D.E. Super, R. Starishevsky, N. Matlin, and J.P. Jordaan, Career Development: Self-Concept Theory (Princeton, New Jersey: College Entrance Examination Board, 1963), p. 6.

of occupational change or selection as well as a basis for explaining alienation in an industrial society. By his analysis focusing on those who remain in a non-rewarding work role he implicitly recognizes the alternative of leaving one occupation for another as a "solution" the worker can consider.[1]

Another social scientist who has approached the understanding of the occupational role by an analysis of the self- or ego-identity is Professor Tiedeman. While denying that he is presenting a completed theory of career development Tiedeman describes mechanisms of differentiation and integration as part of a career development pattern. His concern with the influences of socio-cultural factors upon vocational choice is important enough in his tracing career development to specifically state that Blau's ". . . framework for perceiving occupational choice . . . is not too different . . ." from his (Tiedeman's).[2] Tiedeman and O'Hara go out on a limb by tentatively rating thirteen categories of variables based upon how important they consider them in the prediction of position choice. In order of decreasing importance these variables are:

(1) The circumstances of rearing as a child including the socio-economic status and business contacts of the family.
(2.5) A person's inventoried interests provided his orientation to careers is an "ambitious" one.
(2.5) A person's preference stated while in school provided his orientation to careers is a "responsive" one.
(4) Values related to work and to ways of living.
(5) Self-concepts related to educational achievements and career choice.

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[1]William A. Faunce, Problems of an Industrial Society (New York: McGraw-Hill Book Company, 1968), p. 94; p. 95; p. 102.

[2]D.V. Tiedeman, R.P. O'Hara, and R.W. Baruch, Career Development: Choice and Adjustment (New York: College Entrance Examination Board, 1963), p. 57; p. v; p. 36; p. 73.

(6) Need themes inferred from projective tests and from a person's career pattern as it exists at the time of prediction.
(7) A person's career pattern.
(8) A person's scores on achievement tests and school grades.
(9) Sex
(10) Age
(11) A person's physical or mental capacity.
(12) A person's aptitudes.
(13) A person's established pattern of peer relationships.[1]

Studies done by Hollingshead, Kahl, Super, Tiedeman, and Rosenberg are a few of those cited to support this ranking.

It will be noted that several of the socio-structural variables such as socio-economic status and the family's business contacts are given a high rating while the peer relationship pattern is considered less important. Individual interests and the self-concept are given median ratings, whereas physical and mental abilities and aptitudes are given lower ratings. Fitting these together into a theory of vocational choice is the task that Tiedeman has expressly refrained from doing at this stage. Since many of the variables do not appear to be mutually exclusive and may involve several theories at different levels of generalization it may be expecting too much to try to place them into one "simple" theory of vocational choice particularly when a technological or job market change could also influence job selection.[2]

Some of the researchers who have emphasized the individual or personality variables in vocational behavior are Strong, Holland, and

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[1] Ibid., pp. 78-79.

[2] P.M. Blau, et al. "Occupational Choice," p. 543.

Roe.[1] Strong's major concern has been in measuring the interests (or likes and dislikes) of individuals and comparing their profiles on these measures with the scores received by "successful" men in various occupations.[2] Although a vocational interest form could presumably be used as a predictor of occupational choice Strong did not use it extensively in this way. His five year follow-up of Stanford seniors revealed that over 50% had changed occupation since graduation.

Holland, in considering theories like those of Ginzberg and Super to be too broad while those similar to Hoppock and Roe to be too specialized, has attempted to establish a theory of vocational choice somewhere between these. One of his principal assumptions is that you can roughly classify the occupational environment into the six major categories of motoric, intellectual, supportive, conforming, persuasive, and esthetic. Each of these six major categories is viewed as representing ". . . a somewhat distinctive life style which is characterized by preferred methods of dealing with daily problems. . ."[3] For each of the six occupational environments Holland describes a modal personality type which he hypothesized to consist of preferred ways a person has for interacting with his

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[1] Edward K. Strong, Jr., Vocational Interests of Men and Women (5th printing; Stanford University Press, 1964), p. 392; J.L. Holland, "A Theory of Vocational Choice," Journal of Counseling Psychology, Vol. 6, No. 1 (1959), pp. 35-45; Anne Roe and Marvin Siegelman, The Origin of Interests (Washington, D.C.: American Personnel and Guidance Association, 1964)

[2] E.K. Strong, Vocational Interests of Men and Women, p. 392.

[3] J.L. Holland, "A Theory of Vocational Choice," p. 35-36.

environment. An individual presumably "directs himself" toward the occupational category which best fits his modal personality orientation. Once a given class of occupations is considered the occupation or "occupational level" that will be chosen within that category is considered to be a function of intelligence and self-evaluation. Self-evaluation is considered to be a function of socio-economic origin, need for status, education, and self concept. Interests or needs that are acquired in the development of the person are seen as influences upon the selection of an occupation.[1]

Like Blau, et al.,'s presentation Holland has attempted to pull together a number of social psychological variables and focus them upon vocational choice. Although both views are proposals for the direction that research might take, Holland dwells upon the personality factors to a much greater degree than do Blau and his collaborators. This emphasis upon the individual is to such an extent that Bordin, in his comments on the paper, questions if Holland ". . . has offered more than another version of theory oriented to intra-individual factors."[2]

Lack of Choice

Considering the large number of variables shown to be related to the occupational status, the variability of the time period over which prediction is made, and the lack of occupational information received by many individuals it is understandable that some writers

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[1] Ibid., pp. 36-39.

[2] Edward S. Bordin, "Comment," Journal of Counseling Psychology, Vol. 6, No. 1 (1959), pp. 44-45.

have looked to various structural factors as they influence the chances of a person being in a particular job. Thus, a number of theorists have viewed some of their predecessors as characterizing vocational selection as ". . . non-rational, spontaneous and based upon situational pressures."[1] For example, Caplow points out several "trivial" bases for decision to enter into a particular study program, Kahl depicts indecision or drift among some non-college oriented males, and Hollingshead emphasizes the relationship between the parents' social status and the high school student's job preference.[2] Palmer's finding that 23% of the men in six major cities were in their occupations mainly because of "accidental circumstances" adds support to this position.[3]

Personality Factors as Compared to Social Structural Factors

To consider one group of researchers as stressing personality factors or another as emphasizing structural factors is useful in organizing what some have considered the disconnected theories of vocational choice.[4] Such a classification is also helpful in obtaining

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[1]Basil Sherlock and Alan Cohen, "The Strategy of Occupational Choice: Recruitment to Dentistry," Social Forces, Vol. 44, No. 3 (March, 1966), pp. 303-313.

[2]Theodore Caplow, The Sociology of Work (Paperback edition; New York: McGraw-Hill, 1964), p. 218; Joseph Kahl, "Common Man Boys," Education, Economy, and Society, ed. by A.H. Halsey, Jean Floud, and C. Arnold Anderson (Glencoe, Illinois: The Free Press, 1963), p. 357; A.B. Hollingshead, Elmtown's Youth (Science Edition; New York: John Wiley and Sons, 1961), p. 286.

[3]Gladys Palmer, Labor Mobility in Six Cities (Social Science Research Council, 1954), pp. 135-136.

[4]C.G. Wrenn, "Vocational Choice Theory -- An Editorial Comment," Journal of Counseling Psychology, Vol. 6, No. 2 (Summer, 1959), p. 94.

a grasp of the theoretical approach and research results of those studying occupational choice. Yet, it tends to imply that the two categories of variables are empirically distinct. That this is not generally the case is indicated by the explicit or implicit recognition of the overlap of some of the variables considered by Blau, Tiedeman, and Holland. Such factors as the family's socio-economic position, the family's tendency to suggest or not to suggest college attendance, and the amount of occupational information received by people in the same strata have both an effect upon the individual as a part of his personality and as part of the social structure that provides doors of opportunity or barriers to social and occupational mobility.[1] In part, this combining of social psychological and sociological variables has led Sewell, Haller, and Portes to present a path model of occupational attainment. Included in their model are measures of occupational attainment, occupational aspiration, the influence of significant others, socio-economic status, and four others.[2] They discuss the causal relations between these eight variables, and recognize the possibility of alterations in their model.

Occupational Variables Considered in This Study

Socio-economic Status

As previously mentioned no attempt is made in this study to demonstrate a causal relationship between sentiment and behavior. Rather, the intent to investigate how the variables of belief,

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[1] J.A. Kahl, Education, Economy, and Society, p. 357.

[2] William H. Sewell, Archibald O. Haller, and Alejandro Portes, "The Educational and Early Occupational Attainment Process," American Sociological Review, Vol. 34, No. 1 (1969), pp. 84-86; p. 90.

sentiment, and behavior are related when considered in a potential occupational selection situation.

Numerous researchers have demonstrated an association between beliefs and/or sentiments that might be connected to occupational selection and the individual's socio-economic position in the society.[1] Both the element of belief and the part that may be played by parents' conceptions of different jobs are included in Form's study of occupational ideologies held by manual and white collar workers.[2] The acquisition and transmittal of these class differences in occupational ideologies and sentiments provides a basis for job selection. To a large extent the existence of such class differentials is not under question in this study. Our major concern is how they influence occupational choices.

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[1]E. Chinoy, "The Tradition of Opportunity and the Aspirations of Automobile Workers," American Journal of Sociology, Vol. 57 (March, 1952), p. 457; Herbert H. Hyman, "The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification," Class, Status and Power, ed. by Reinhard Bendix and Seymour Martin Lipset (Glencoe, Illinois: The Free Press, 1953), pp. 426-442; L.C. Rosen, "The Achievement Syndrome: A Psychocultural Dimension of Social Stratification," American Sociological Review, Vol. 21 (April, 1956), pp. 203-211; LaMar Empey, "Social Class and Occupational Aspiration: A Comparison of Absolute and Relative Measurement," American Sociological Review, Vol. 21 (April, 1956), pp. 703-709; William H. Sewell, Archie O. Haller, and Murray A. Strauss, "Social Status and Educational and Occupational Aspiration," American Sociological Review, Vol. 22 (February, 1957), pp. 67-73; Richard M. Stephenson, "Mobility Orientation and Stratification of 1,000 Ninth Graders," American Sociological Review, Vol. 22 (February, 1957), pp. 204-212; N.F. Dufty, "The Relationship Between Paternal Occupation and Occupational Choice," International Journal of Comparative Sociology, Vol. 2 (March, 1961), pp. 81-87; Hyman Rodman, "The Lower Class Value Stretch," Social Forces, Vol. 42 (1963), pp. 205-215; Francis G. Caro, "Social Class and Attitudes of Youth Relevant for the Realization of Adult Goals," Social Forces, Vol. 44 (1966), pp. 492-498; Leonard I. Pearlin and Melvin L. Kahn,"Social Class, Occupation, and Parental Values: A Cross National Study," American Sociological Review, Vol. 31 (August, 1966), pp. 466-479.

[2]William H. Form, "Toward an Occupational Social Psychology," Journal of Psychology, Vol. 24 (1946), pp. 85-99.

Goals

The beliefs that younger people have about the existence, availability, and desirability of jobs and the strength of feeling or sentiment they have toward those occupations represent two of the variables in the area of vocational choice that will be utilized to determine if a relationship exists between sentiment and behavior. The beliefs people have about the presence of occupations that they might obtain will be considered as behavioral alternatives. The feelings people have about these alternatives are hypothesized to be related to behavior as discussed earlier.

Using Escalona's development of Lewin's theory of level of occupational aspiration, Alexander, et al. have shown a median positive correlation of .88 between certain occupational goals of male undergraduates and a "resultant weighed valence."[1] Since the resultant weighed valence is theoretically conceived as being composed of valence of success multiplied by the probability of success minus the valence of failure multiplied by the probability of failure there is the possibility that this measure includes what individuals believe and how they feel about the preparation and training to get into different occupations as well as the occupations themselves. Even though goals, in this study may be "contaminated" by means and reference groups we will try to consider their effects separately.

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[1]Irving E. Alexander, Lee B. Macht, and Bertram P. Karon, "The Level of Aspiration Model Applied to Occupational Preference," Human Relations, Vol. 12, No. 2 (April, 1959), pp. 163-170.

Means

It is expected that whatever beliefs and sentiments a person holds about the steps he must take to obtain a specific occupation will enter into any decision about occupational selection. Beliefs about one set of means being more difficult or requiring more effort than another set of means would be expected to alter a decision depending upon the type and the strength of sentiment attached to them. Among the factors that would increase the strength of sentiment towards an alternative would be the positive feelings about a challenge. Where the means are considered a challenge and the individual has positive feelings toward challenge then such difficult means would not be expected to reduce the attractiveness of the job for that person. However, when the means are difficult but not challenging we would expect the alternative to be less attractive and when the person does not believe he possesses or could obtain the means then we would expect such an occupation not to be an alternative.

For those considering level of occupational aspiration as a major determinant of occupational selection the concept of means seems encompassed in the ideal of the valence for and probability of failure and success.[1] For those researchers who have investigated the connection between father's socio-economic status and occupational plans the way a person thinks and feels about how to obtain a particular job is often viewed as a resultant of social status.[2] In this study

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[1] Ibid., p. 165.

[2] Grant E. Youmans, "Occupational Expectations of Twelfth Grade Michigan Boys," Journal of Experimental Education, Vol. 24 (June, 1956), p. 262.

beliefs and sentiments about means are assumed to have come mainly from the person's interaction with those in his family's social strata. The attempt to have respondents separately identify means tries to take into consideration the different beliefs and sentiments that individuals within the same strata may have that could influence their choice goals.

Reference Groups

Referring to both their own research and other studies, Burchinal, et al. conclude that of those who influenced occupational selection most, parents were first, with teachers, friends, and vocational counselors following in order.[1] Boyle points out that both the high school and family background have an effect upon occupational aspiration.[2] Whereas Boyle was concerned with the relative importance of family background and type of high school we are attempting to get students to "add" their sentiments about family and friends as a factor in evaluating potential occupational choices.

In summary, two points should be made about the above discussion of variables. First, it is not intended that this has been an exhaustive analysis of the relevant factors in occupational choice. Our earlier mention of the difficulty in establishing mutually exclusive variables is only one reason for such a limitation. Secondly, our

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[1] Lee G. Burchinal, A.O. Haller, and Marvin J. Traves, "Career Choices of Rural Youth in a Changing Society," North Central Regional Publication, No. 142 (St. Paul: Minnesota Agricultural Experiment Station Bulletin 458, 1962), p. 17.

[2] Richard P. Boyle, "The Effect of the High School on Students' Aspirations," American Journal of Sociology, Vol. 71, No. 6 (May, 1966), pp. 628-639.

delineation of several of the above factors is not to try to assess their relative importance. The design of the study seeks to have individuals progressively consider their feelings about goals, means, and reference groups as they influence a particular set of occupations.

Chapter II develops specific hypotheses from the preceding theoretical orientation.

CHAPTER II

HYPOTHESES

As considered here a hypothesis will be "any statement under test." Our hypotheses are developed from the theory presented in Chapter I. If, in our tests of these hypotheses, we find support for them, then we can say that there is some support for the theory from which they were developed. Such support does not mean that all the statements in the theory were correct nor does non-support mean that they were all inaccurate. Tests of hypotheses provide additional evidence to be used in evaluating the theory from which they came.

The following hypotheses are formulated from the variables, assumptions about the variables, and the major hypothetical statements developed in Chapter I. As discussed in Chapter I an alternative will be considered as a special case of belief.

In some hypotheses the alternative will be simply a belief about an occupation while in others it will also include a complex of beliefs about what is involved in entering a particular occupation. In some hypotheses the belief structure subsumed under the alternative may be more complex. Despite the complexity these hypotheses can be tested even if the individual has only a belief about the existence of the alternative. It is not required that they believe the same thing or have the same number of beliefs about an alternative.

In formulating the major thesis presented in the preceding Chapter we made several assumptions about the nature of sentiment. It was maintained that man possessed both positive and negative sentiments toward alternatives. We suggested that the individual combines his sentiments in a way that can be represented as an algebraic resultant. This algebraic resultant was hypothesized to be positively associated with the alternative selected. Hence, it would be theoretically possible to develop hypotheses where alternatives are considered which have only positive or only negative sentiment attachments. However, where occupational choice is involved we suspect that there are few jobs which stimulate only positive or only negative sentiment for the potential occupants of these positions. For this reason both positive and negative sentiments are recognized as being present, in various degrees, in most of the choice situations considered here. Therefore, in testing these hypotheses we are also testing the additional assumption that man is capable of comparing the resultant of positive and negative sentiments toward two alternatives in a manner that can be portrayed algebraically. This does not mean that each alternative is always associated with both a positive and a negative sentiment or that only one positive or negative sentiment can be involved.

While the data collected in support or refutation of the following hypotheses can be used as an indicator of the validity of the foregoing assumptions there will remain questions about them that are not answered. How many sentiments can be compared? How many negative sentiments are involved in occupational choice? How persistent are sentiments? These are a few of the questions. The tests carried out here may indicate the desirability of further research in these areas.

Hypotheses one, two, and three are designed to include an increasing number of those sentiments and beliefs in the occupational choice actually made. In each of these hypotheses the alternatives are taken to be special cases of belief. Sentiments are considered to be potentially associated with each of these beliefs even though there may be beliefs without sentiments attached. Although sentiments are viewed theoretically to be additive all of the hypotheses proposed here are stated so that the assumptions of ordinal measurement are met.[1]

Hypothesis 1

Within our theoretical framework a person considering two occupations could have six main patterns of sentiment toward them. He could have only positive sentiment toward both jobs, positive toward one and negative toward the other, only negative sentiment toward both of them, positive and negative sentiment toward one or both jobs, positive and negative sentiment toward one job and only positive toward a second job, or positive and negative sentiment toward one job and only negative sentiment toward a second job. Slightly different assumptions are necessary with each of these patterns. Where only positive or negative sentiments, but not both, are involved then we need to assume that humans can accurately compare two positive or two negative sentiments. Where one alternative is associated with a positive sentiment and another with a negative sentiment it is necessary to assume that these two can be compared. When both positive and

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[1] See Appendix A for an analysis of hypotheses one, two, and three under the assumption of interval measurement.

negative sentiments are associated with one or both alternatives then a comparison between the alternatives requires the individual to be able to weigh both positive and negative sentiments.

Hypothesis 1 states a relationship between a set of beliefs about occupational goals and the positive and negative sentiments attached to them. It attempts to have individuals compare only their feelings toward potential occupations without considering how they would get these jobs or what other people might think about them taking such a job.

Any of the above six patterns of sentiment may be present in the comparison of sentiments toward two occupations and all can be used under hypothesis 1 to test the major hypothetical statement in Chapter I.

Since all of the occupations compared by respondents were jobs they had been considering we expect most of them to be associated with positive rather than negative sentiments. Hence, in hypothesis 1 most individuals would only have to be able to accurately compare positive sentiments for two alternatives.

If alternative A stimulates a resultant strong positive sentiment and alternative B stimulates a resultant weaker positive sentiment in an individual we can take the main hypothesis and the assumption that humans can generally compare two positive sentiments accurately to arrive at the hypothesis that: Individuals will generally select alternative A.

Relation of Hypothesis 1 to Empirical Data

It will be noted that the nature of the hypotheses is that they predict generally and are statistical in statement. At least two

factors are partly responsible for this probabilistic form. First, past experiences and newly associated sentiments may occur which alter the attached sentiment enough to change the decision and yet remain undetected by the measuring instrument. For example, Stagner reported an incident of a farmers' group in Northern Wisconsin voting unanimously to call a milk strike after hearing a speaker in favor of a strike in the afternoon and then voting unanimously against the strike, later in the same day, after hearing a speaker urge them not to strike.[1] Secondly, positive sentiments are predominate in hypothesis 1 even though it is assumed that negative sentiments will also influence some decisions. Nevertheless, hypothesis 1 maintains that decisions will generally go in the direction of strong positive sentiment. A ranking of jobs based upon the positive sentiment toward these jobs is expected to be positively associated with a ranking based upon stated intent to acquire or not to acquire these jobs. Stating an intent is a type of decision-making even though in an interview or questionnaire it does not have the face validity of observing the individual in the occupation.

In hypothesis 1 through 3 the operationalization of "selecting an alternative" is performed by using the respondent's statement of "seriousness of intent." For those students considering four jobs, as we can place all of these selections within one four by four table, it is predicted a positive association between positive sentiment and

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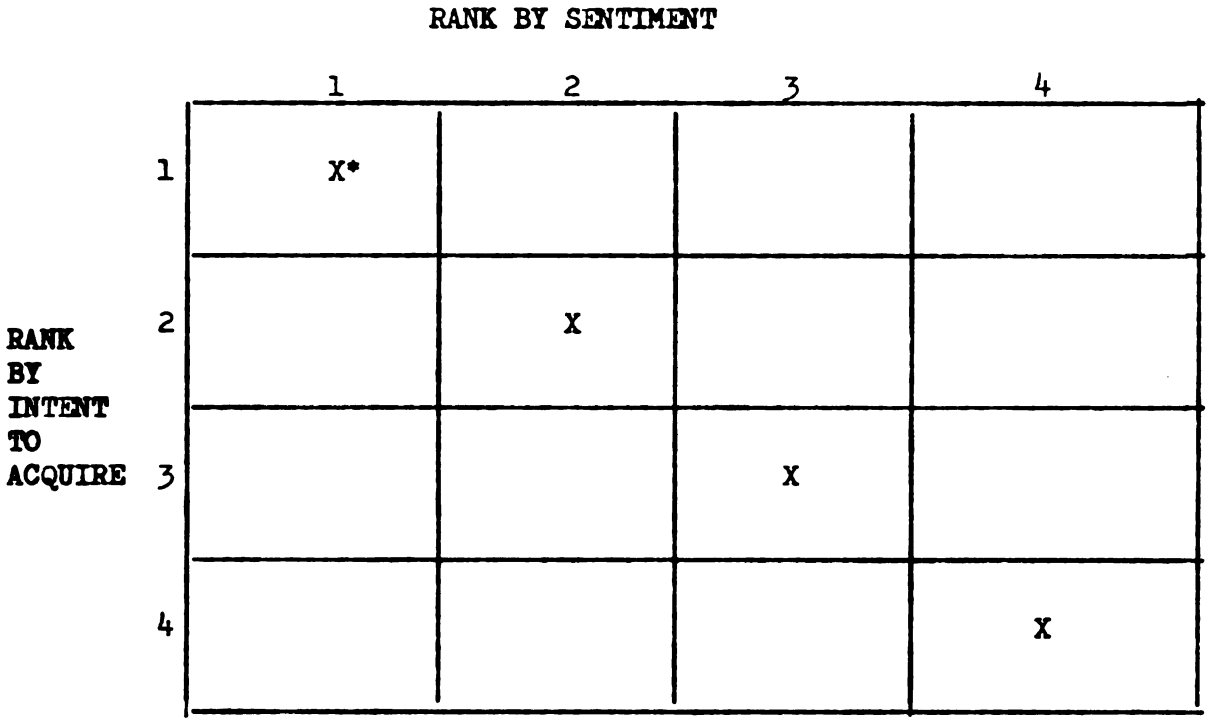
[1]Ross Stagner, "Methodology of Attitude Measurement," Research in Social Psychology of Rural Life, edited by J.D. Black (Bulletin 17; New York: Social Science Research Council, 1933), p. 116.

a likelihood of being selected (on the questionnaire) will be indicated by the largest proportion of choices being in the diagonal cells.



*X's indicate largest predicted frequencies.

FIGURE 1. LOCATION OF EXPECTED GREATEST FREQUENCIES

Several measures were taken to suggest to respondents that they need not be consistent in their ranking of jobs based upon sentiment as compared to their ranking of the same jobs based upon choice. Respondents were asked at the beginning of the questionnaire to rank the occupations based upon how much they would <u>like</u> to be in each of them. They were next given an example of how a person might like the

occupation of a medical doctor better than that of a truck driver yet might like the conbination of the job of truck driver and what they believed they had to do to become one as compared to the job of doctor and what they thought they had to do to get into that occupation. Another technique designed to measure the sentiment dimension separate from choice dimension was to require respondents to consider their sentiments toward the jobs and means of getting the jobs by a series of paired comparisons. Where four occupations were considered the respondent made six comparisons. Since paired comparisons were used twice and were separated by five pages of questions this made it more difficult for a respondent to rank jobs in the same way just for the purposes of being consistent. The detailed and extensive nature of the questionnaire encouraged the individual's analysis of the possible contradictory forces involved in occupational choice.

Hypothesis 2

Hypothesis 2 adds the consideration of sentiments attached to the means that respondents consider necessary to acquire specific jobs.

Smith is considering alternative D and alternative C. Alternative D stimulates a strong positive sentiment (exact magnitude unknown) and a strong negative sentiment (exact magnitude unknown). Alternative C stimulates a strong positive sentiment stronger in magnitude than does alternative D.[1] Combining main hypotheses and the assumption

[1]Where sentiments for an alternative are both positive and negative there exists a situation that is sometimes considered to be ambivalence. Although of theoretical importance we will not attempt to explicate the exact process by which various positive or negative sentiments are compared.

that humans can generally algebraically compare their positive and negative sentiments toward two alternatives each with two components we obtain the hypothesis: If the algebraic sum of the positive and negative sentiments is greater for alternative D than C, then Smith will generally select alternative D.

Relation of Hypothesis 2 to Empirical Data

It is also predictable from hypothesis two that there will be a positive association between a paired comparison of occupations and their respective means based upon sentiment and a ranking of these same occupations based upon intent to acquire them. Because more of the variables thought to influence occupational choice are included it is expected that this association will be greater than the association in hypothesis 1. Such an association will be indicated by the presence of larger percentages in the diagonal cells than found under hypothesis 1.

Hypothesis 2a

Hypothesis 2a investigates how beliefs and sentiments about the means to obtain a job are associated with decisions to seek or not to seek more information about these means. It considers a choice to seek information to be a special case of the thesis advanced in this study. In this hypothesis it is maintained that sentiment toward alternatives is associated with the selection that is made.

One hypothesis from Festinger's theory of cognitive dissonance maintains that those who have a strong commitment toward some course of action and then subsequently discover some threat toward this commitment will seek information to support their commitment. Although the theory presented earlier does not agree with Festinger's view that "non-fitting

relation among cognitions is a motivating factor in its own right."[1] and the following hypothesis is not a definitive statement of this conflict, it is presented to show how sentiment as attached to alternatives is also a related element in a choice situation.

We will assume: (1) those who say they plan to continue their education have made some "commitment" to a goal; (2) that the belief of reaching this goal will likely stimulate a positive sentiment and the belief of not reaching it will likely stimulate a negative sentiment; (3) that any questions that reveal conditions which might prevent reaching this goal will raise an alternative (not going to college) with attached negative sentiments; (4) that the more likely a given actor believes he lacks some necessary information about some goal to which he is committed the more likely there will be positive sentiment toward seeking information that will support this commitment.

We then hypothesize that the more likely there is positive sentiment toward seeking information to support a commitment the more likely individuals will take action to obtain this information.

Relation of Hypothesis 2a to Empirical Data

Those respondents who have specified they intend to go to college after high school and who check few "no" or "don't know" choices in response to questions about college entrance requirements will also tend to check a small number of statements indicating they would like more information about college entrance requirements. Conversely, those who check many "no" or "don't know" responses will tend to check a large number of statements indicating they would like more information about college entrance requirements.

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[1] L. Festinger, A Theory of Cognitive Dissonance, p. 85; p. 13.

Hypothesis 3

In hypothesis 3 we will add the consideration of beliefs and sentiments about reference groups. It maintains that people can attend to more than two forces from each alternative in making a decision.

Let us assume that Brown is considering alternative E which consists of goal E_1, means E_2, and is related to reference group E_3 with respective sentiments e_1, e_2, and e_3. Brown is also considering alternative F which consists of goal F_1, means F_2, and is related to reference group F_3 with respective sentiments f_1, f_2, and f_3. The main hypothesis posited that individuals select the alternative which was linked to the greatest positive or least negative sentiment. Hypothesis 3 maintains that humans can algebraically compare their sentiments towards two sets of goals, means, and reference groups. It is an attempt to consider most of the motivational forces involved in an occupational choice.

Relation of Hypothesis 3 to Empirical Data

In order to test hypothesis 3 students will be asked to make a paired comparison of their sentiment toward two job alternatives and the respective means and reference groups involved. This ranking, based on sentiment, is predicted to be strongly positively associated with the ranking of these same jobs based upon reported intent to acquire them.

Sentiment has been hypothesized to be associated with choice. Therefore, the more that the sentiments presented in the hypothetical situation accurately stimulate the sentiments stimulated in the overt

choice situation the higher the expected relationship between (1) the ranking of jobs based upon sentiment for the job, means to get the job, and how the individual feels about reference groups' opinions of the job, and (2) the ranking of the jobs based upon reported seriousness of intent to acquire them. Seriousness of intent is the measure of what job choices would be made at the time the interview was conducted.

If sentiment is accurately measured and if individuals can algebraically weigh these positive and negative sentiments, then this association should be greater than for the associations for hypotheses one or two. Such an association can be shown by an increase in the proportion of the same jobs selected on the two variables of sentiment for job, means, and reference group as compared with intent. These proportions are expected to be larger than they were under hypothesis 1 or 2.

Hypothesis 3a

Hypothesis 3a applies the main decision-making hypotheses to the choices people make to associate or not to associate with others. It considers sentiments toward groups to be the major factors related to who associates with whom even though it is recognized that other social factors are also important.

Where people are not restrained by force individuals must make decisions about the groups with which they will associate. To a degree they may regulate the amount of time they spend with various others by seeking some as companions and avoiding others.

In spending more time with a particular group the individual is more likely to be subjected to their beliefs about various occupations.

To the extent that the individual develops positive feelings toward these groups and to the extent that these groups express approval or disapproval concerning occupational choices they might be expected to influence what jobs would be considered. Such reference groups could also alter the resultant sentiment attachment to an alternative by the actual or potential rewards or punishments they could deliver to the individual.

Although hypothesis 3a will not try to determine the extent of influence reference groups exert upon occupational selection it will try to discover the extent to which sentiment toward a particular group is related to the amount of time the individual spends in the groups. It predicts: that individuals spend more time with those groups with whom they most enjoy the interaction.

Exceptions would occur whenever there is a positive sentiment for the groups and the groups expect the members to spend time away from them. A family may expect a child to attend school away from home. A student may cultivate the friendship of a clique from which he obtains limited enjoyment but which can provide him a means of social acceptance. Yet, it is expected that there will be a limited number of these situations and they will not alter the hypothetical relationship between sentiment and participation in group activities.

Relation of Hypothesis 3a to Empirical Data

It is expected that the hypothesized tendency will be shown by a positive relation between how much high school students like being with various possible reference groups and how much time they spend with these groups. The students' estimates of how they spend

their time and of how much they say they enjoy being in the company of these groups will be taken as indicators of these variables.

Hypothesis 4

If sentiment is strongly associated with occupational selection, then we would expect similar associations for all categories of people. Only differences resulting from inaccurate measurement or situations where sentiment is fleeting or choices are vacillating would group differences be predicted.

Hypothesis 4 maintains that there will be no significant differences in the relationship between sentiment and choice for males as compared to females.

Social Structural Correlates of Occupational Choice

Even if we can support the major hypothesis that sentiment is associated with choices and the accompanying assumptions that sentiments and beliefs arise mainly from social interaction in a physical environment this would not show the source of these beliefs nor their relation to the patterns of behavior occurring within the larger society. While we do not expect to be able to provide more than a hint of these sources we will consider parents and others in the same social strata as those with whom students will likely come into social contact. If parents and others of the same social rank are a source of beliefs and sentiments for their children and these beliefs and sentiments respectively provide the alternatives and motivation for seeking specific occupations, then a knowledge of social rank can be used as a predictor of occupational choice. Some beliefs and sentiments

found within one strata might be expected to keep individuals within that strata while others would be causal agents in social mobility.

Hypotheses five, six, and seven suggest several ways in which social stratification may be related to the types and number of occupations that a youth seriously considers. In order to make a decision between alternatives these alternatives must exist for the individual. To the extent that stratification influences the number of alternatives for individuals it is a factor in choice behavior. Support or non-support for these hypotheses will indicate a limited number of ways in which stratification is linked to occupational selection. In each of the following three hypotheses stratification is tentatively considered to be the independent variable. The dependent variables associated with it could each be independent variables in occupational choice.

Hypothesis 5

Choice behavior has been considered within the social context of the individual interacting with his environment. Specifically, occupational choice has been hypothesized to be associated with beliefs and sentiments that are acquired from experiences in the various social positions held. It is assumed that the beliefs and sentiments reflect the person's experience. To the extent that others in similar social positions engage in the same type of interaction it is maintained that they will develop similar sentiments and beliefs.

Our intent here is not to investigate the particular processes of socialization by which sentiments and beliefs are acquired or transmitted but to determine a few of those that are transmitted and

some of their behavioral implications for occupational choice. The social status of youth as it is influenced by the occupation their fathers hold is one area in which the knowledge of the transfer of beliefs and sentiments may aid in the explanation of behavior.

Hyman has taken the position that the beliefs and values of the lower classes operate as an intervening variable between low status and lack of upward mobility. Although there are a few exceptions his review of research findings together with secondary analyses of public opinion surveys generally show the lower strata less often recommending college, more often desiring economic benefits in a job, less often wanting an "all or nothing" type occupation, and less often believing in economic opportunity.[1] Subsequent research has tended to provide support for substantial class differences in the prestige levels of occupational plans even though there is still some question about differences in occupational aspirations.[2]

Our position here is that beliefs and sentiments operate as intervening variables between social status of the student as measured by father's occupation and the prestige level of (the student's)

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[1]Herbert H. Hyman, "The Value System of Different Classes: A Social Psychological Contribution to the Analysis of Stratification," Class, Status and Power, ed. by Reinhard Bendix and Seymour Martin Lipset, pp. 427-437.

[2]Francis G. Caro, "Social Class and Attitudes of Youth Relevant for the Realization of Adult Goals," pp. 492-493; C.T. Pihlblad and F.C. Caro, "Aspirations and Expectations: A Re-examination of the Bases for Social Class Differences in the Occupational Orientations of Male High School Students," Sociology and Social Research, Vol. 48 (1965), pp. 465-475; Hyman Rodman, "The Lower Class Value Stretch," pp. 205-215; Basil Sherlock and Alan Cohen, "The Strategy of Occupational Choice," pp. 303-313.

occupational plans. Therefore, in a similar manner to that outlined by Hyman, individuals acquire beliefs and sentiments about the occupations, their accessibility, and how others react to these occupations. Hence, those in the various strata more often acquire the beliefs and sentiments about the desirability and possibility of jobs from the reference groups in their respective strata than from some overall societal established set of goals.[1]

A substantial body of research supports the position that there is a direct relationship between parental social status and children's occupational plans.[2] Genevieve Knupfer, in a portrayal of some of the effects of lower status, calls attention to studies which indicate that many of those in the lower strata (1) participate in fewer organized activities; (2) know fewer people; (3) visit fewer people outside the community; (4) know fewer outside the family; (5) read less; (6) are less well informed.[3] While Knupfer acknowledges that these data from

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[1]Robert K. Merton, Social Theory and Social Structure, p. 139.

[2]N.F. Dufty, "The Relationship Between Paternal Occupation and Occupational Choice," p. 82; LeMar Empey, "Social Class and Occupational Aspiration," p. 706; A. B. Hollingshead, Elmtown's Youth, p. 286; Stanley Krippner, "Junior High School Students' Preferences and Their Parents' Occupational Levels," Personnel and Guidance Journal, Vol. 41, (March, 1963), p. 593; Seymour M. Lipset and Reinhard Bendix, Social Mobility in Industrial Society (Berkley: University of California Press, 1959), p. 25; William H. Sewell, Archie O. Haller, and Murray A. Strauss, "Social Status and Educational and Occupational Aspiration," p. 72; Richard M. Stephenson, "Mobility Orientation and Stratification of 1,000 Ninth Graders," p. 208; Grant E. Youmans, "Occupational Expectations of Twelfth Grade Michigan Boys," p. 269.

[3]Genevieve Knupfer, "Portrait of the Underdog," Class, Status and Power, ed. by Reinhard Bendix and Seymour Martin Lipset, pp. 255-263.

various studies may not always represent the same portion of the lower strata they provide the suggestion that the lower strata youth may also consider fewer occupations than his counterpart higher in the social strata.

Although the distinction between aspirations and plans has provided a theoretical springboard for research our concern is with alternatives toward which respondents were more likely to have developed some sentiments.[1] To obtain this type of alternative we asked, "What jobs have you been thinking about going into after you finish your schooling?"

Such a question is asking for probabilities within the student's present educational and occupational possibilities that would be closer to occupational plans than to his aspirations as these two have been identified.[2] Despite the previously mentioned research supporting the positive relationship between father's occupational status and job plans none of the cited studies has reported this relationship for more than two of the jobs that a student might consider.

Therefore, hypothesis 5 posits a direct relationship between father's occupational prestige rating and each of the jobs the student says he has been thinking about entering after he finishes school.

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[1] Richard M. Stephenson, "Mobility Orientation and Stratification of 1,000 Ninth Graders," pp. 204-212; Robert G. Holloway and Joel V. Berreman, "The Educational and Occupational Aspirations and Plans of Negro and White Male Elementary School Students," Pacific Sociological Review, Vol. 2, No. 2 (Fall, 1959), pp. 56-60.

[2] R.M. Stephenson, "Mobility Orientation," p. 205.

Both sets of occupations are rated by the Duncan Index of occupational prestige as transformed to the North-Hatt scale.[1]

Hypothesis 6

It is expected that the potential occupations elicited by the above question asking for the jobs students have been thinking about will provide a limited range of jobs for some students since many are likely to refrain from considering either jobs they don't believe they can reach or jobs they consider repugnant.[2] If those in the lower strata believe they lack the means to obtain certain desirable jobs at the upper end of the prestige scale, are not aware of as many potential jobs open to them, and more often have reference groups who are "own kin," then we would expect them to be more limited in the number of occupations they consider open to them as compared to the middle and upper strata.[3]

On the other hand, if those in the lower strata tend to find other lower strata jobs more attractive than do those in the middle and upper strata, then we would expect this to increase the number of jobs the lower strata list as possible occupations.[4] However, even if

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[1] Otis Dudley Duncan, "A Socioeconomic Index for All Occupations," Occupations and Social Status, ed. by Albert J. Reiss, Jr., Otis Dudley Duncan, Paul K. Hatt, and Cecil C. North (New York: The Free Press of Glencoe, Inc., 1961), p. 128.

[2] E. Ginzberg, et al., Occupational Choice, p. 185.

[3] H.H. Hyman, "The Value Systems of Different Classes," pp. 436-437; G. Knupfer, "Portrait of the Underdog," p. 258.

[4] R.K. Merton, Social Theory, p. 139.

both this trait and the characteristics given in the previous paragraph are important variables we expect the latter to have a greater influence; not because of the strength of a single variable, but due to the larger number of variables. Hypothesis 6 maintains that those in the lower strata will name or list fewer jobs in response to an open-ended question which asks high school juniors and seniors what jobs they have been considering.

Hypothesis 7

If those in the lower portions of the social strata are less well informed in general we would expect them to be less informed about educational alternatives, and therefore, to consider fewer alternatives for their post high school education. The cost of higher education is likely to be more of a limiting factor for those in the lower economic portions of the society.

Considering differences in information and the limiting economic factor, hypothesis 7 maintains that lower strata students will tend to select fewer potential colleges or technical schools than will upper strata students. Such a hypothesis will necessarily exclude those who choose not to continue formal education after high school. Most of these will be lower strata students.

In summary the hypotheses discussed in this chapter are in two major categories. Hypotheses 1, 2, 2a, 3, and 3a state a positive relationship between positive sentiment and behavior. Where negative sentiment is involved it is hypothesized that the resultant greatest positive or least negative sentiment is most closely related to the alternative a person selects.

The second category of hypotheses includes hypothetical statements about a few of the possible relationships between social strata and the occupational and educational selections made by these students. Hypotheses 5, 6, and 7 suggest relationships derived more from beliefs rather than sentiments acquired at different locations in the social structure.

CHAPTER III

METHODOLOGY

Introduction

The precise way in which "motivation" or sentiment, as used here, is linked with human behavior has been a recurring and frequently elusive subject for social scientists.[1] Its measurement presents serious problems of interpretation.[2] If the researcher chooses indicators which are too "directly" connected with behavior, he can be charged with circularity or lack of independence between measures. On the other hand, if he selects indicators which are too far removed from the underlying variable, he may have difficulty in interpreting their validity.

In asking respondents to rank jobs based upon their feelings of liking and later asking them to rank the same jobs based upon their intent to acquire them, there is reason to suspect that there is some

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[1] T. Parsons, Structure of Social Action, p. 16; G. Homans, The Human Group, p. 61; Nelson Foote, "Identification as a Basis for a Theory of Motivation," American Sociological Review, Vol. 16 (February, 1951), p. 18; Reinhard Bendix, "Discussion" (of Nelson Foote's "Identification as a Theory of Motivation"), American Sociological Review, Vol. 16 (February, 1951), p. 22; John T. and Jeanne E. Gullahorn, "Computer Simulation of Human Interaction in Small Groups," Simulation, Vol. 4, No. 1 (January, 1965), pp. 49-61. These represent, along with others listed in Chapter I, only a few who have been involved with the issue.

[2] Clyde Coombs, "Theory and Methods of Social Measurement," Research Methods in the Behavior Sciences, ed. by L. Festinger and D. Katz (New York: Dryden Press, 1953), pp. 471-472.

memory carry over from one portion of the questionnaire to another so as not to consider these observations completely independent. Even lacking complete independence by this definition the intent here is to show a stronger relationship between sentiment and choice as more sentiments from the actual choice situation are stimulated. Part of the data in this study will lack this type of independence. The rest will not.

Restatement of the Central Hypotheses

The selection of any alternative of which the individual is aware is positively related to its relative greatest positive or relative least negative sentiment at the time the decision is made.

Again, it should be emphasized that neither the direct measurement of sentiment nor the observation of actual job selection has been attempted. The respondents' verbalizations are considered as indicators of sentiment and of likely job choices at the time respondents were questioned.

Type of Data Required

The preceding theoretical orientation has three major requirements placing some limitations upon the methods used. First, it required some indicator of an individual's strength of sentiment toward an object or set of objects and then a measure of social action in relation to that same object. High school junior and seniors were taken as the objects since the last two years of high school requires a career commitment for many students even though others will not begin their "trial work period" until later when their formal schooling is

over.[1] Although a commitment does not ensure a feeling of sentiment it was believed to be more likely to be present than at an earlier time. In order to try to get social objects which individuals were more likely to have considered seriously and toward which they were more likely to have developed some feelings, I requested students to report those jobs that they had considered going into "after your schooling is over."

A second requirement, derivable from the theoretical formulation, was to have respondents consider all those sentiments that were likely to be stimulated when they had made or would make a particular decision. The three major areas which were thought would stimulate sentiments were the jobs, the means of getting these jobs, and reference groups.[2] Respondents were first asked to rank career alternatives considering their feelings toward the job only, next their feelings toward the jobs, respective means, and what their parents and friends would think of them going into these jobs. No contention is made that all relevant sentiments were tapped by this technique since several other factors may have been present in the actual choice environment that could not have been completely considered in the questionnaire or interview situation. Some of these are the response to the person administering the schedule, the schedule itself, the availability of job alternatives, and the social pressures of some particular reference group at the time a decision was made.

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[1] D.C. Miller and W.H. Form, Industrial Sociology, p. 536.

[2] R.K. Merton, Social Theory, Chapter IX.

A third restriction on the data was that some action indicator be used which followed the measurement of sentiment closely enough so that a large change in the sentiments stimulated would not be likely to occur.

Such a short time interval between a measure of sentiment and a measure of activity hypothesized to be related to sentiment is subject to bias as the result of memory from one part of the schedule to the other. In an effort to minimize this effect one of the indicators of activity (question 39)[1] was isolated from the other questions ranking the jobs considered. Another of the indicators of activity (question 34) was constructed so as to show no apparent direct connection between feelings and the possible alternative in the previous questions.[2]

Selection of the Sample

Two pre-tests of the questionnaire with a small group of high school seniors were conducted in the winter of 1961-62. Participants were then questioned about their ability to distinguish between a ranking based upon liking the job only and one based upon liking the job and the requirements. At this time no difficulty was expressed on this portion of the schedule. Some did express a difficulty in ranking ten different groups based upon the amount of time they spent with them and a second ranking based upon how much they enjoyed being with them.

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[1] The questionnaire is reproduced in Appendix B.

[2] Question 34 asked respondents to check a series of items stating a desire for more information about a school they had thought about attending. They had previously been asked thirteen questions dealing with their knowledge of entrance requirements of this same school.

In subsequent administrations of the schedule respondents were, therefore, not pushed to rank those with which they had no contact. Construction of the schedule was also altered so as to facilitate its administration.

Originally both male and female Anglos and Spanish-Americans were to be in the sample with the intention to test hypotheses of no differences between sentiment and planned activity for these social categories. However, the Anglo-Spanish-American comparison was dropped when it became evident that there would be practically no Spanish-Americans in the junior or senior grades in the area selected.

One of two high schools in a middle-sized mid-western city was selected and approximately every nth name taken from a list consisting mostly of the juniors and seniors in the class of 1961-62. Approximately twice as many seniors as juniors were selected.

From a total of 232 names there were 185 completed questionnaires or interviews, 41 that were not contacted, and 6 refusals. Those not contacted were away from home for the summer, had moved leaving no forwarding address, moved out of the area, or were unavailable for other reasons. Of the 185 completed schedules two were not included in the analysis, one had only a small portion of the questionnaire filled out and the other respondent was antagonistic throughout the interview.

The completed schedules included 117 seniors, 58 juniors, and 8 in lower grades. Taking the class sizes at the end of the school year this makes up just under 28% of the seniors and a little over 13% of the juniors.[1] Excluded from this sample would be those juniors or seniors who left school before the end of the year.

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[1]School records list 429 juniors and 419 seniors at the end of the 1961-62 school year.

Administration of the Schedule

In order to have the schedules completed by the end of the summer all those students who could be reached by phone were asked to come to a room reserved at a local college to answer questions about their occupational plans. Students were scheduled at different hours so that no more than ten would be there at any one time. Instructions were given to these small groups when they were first handed the questionnaire, just before they answered question 12, and for any questions they had. Although few other difficulties were encountered it was discovered after about half of the questionnaires had been completed that, for some, the category "friends outside of school" meant friends of about the same age in another high school and, for others, it meant friends of about the same age who had dropped out of school. Such ambiguity limits the validity of this one category in considering it as a possible reference group but should not alter any relationship between the way the category was ranked by the same student on two different variables since he would presumably be considering the same group in both rankings.

Respondents who could not or did not come to the college to fill out the questionnaire were interviewed whenever and wherever they could be contacted. A maximum of seven calls was made in an attempt to make the sample more representative even though this was not a major requirement of the study. A total of 79 interviews was completed resulting in about 43% of the usuable schedules. With the exception of one interview both the supervision of the small groups answering the questionnaires and the interviewing were performed by the writer.

Index of Occupational Status

Each potential job considered by the students and each student's father's occupation were given a prestige score determined from Duncan's socio-economic index as transformed to the NORC scale.[1] McTavish has pointed out how some wide variances may occur in the using of this index to code occupations depending upon the way the index is entered.[2] By being the only coder and by keeping a list of the scores assigned to specific jobs I could check the list to make sure a particular job was given the same score. Although this did not assure a valid prestige score it was a means to improve reliability since, except for a possible misreading of the list, all jobs having the same title received the same score.

Coding

As a mnemonic aid in coding each single page of all the schedules was coded before proceeding to another page.

All coding was done by the author with key punching and verification performed by experienced key punch operators.

Using a table of random numbers a subsample of ten schedules was selected and checked for coding errors. Seven mistakes were found from the total number of 2,400 entries (10 schedules X 80 columns X 3 decks) giving a potential coding error of less than .003. No one type

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[1] O.D. Duncan, Occupations and Social Status, ed. by A.J. Reiss, Chapter VI, Appendix B.

[2] Donald D. McTavish, "A Method for More Reliably Coding Detailed Occupations into Duncan's Socio-Economic Categories," American Sociological Review, Vol. 29, No. 3 (June, 1964), pp. 402-406.

of mistake was found to be repeated with the exception of the recording of three "not applicables" as "no replies."

A print out of the three data decks was visually compared with the original coding sheets and all mistakes corrected. Even though all the cards had been verified one specific type of error may be of note for researchers using punch cards. On three cards both the key punch and verifier operators had skipped a column toward the beginning of the card and had added a column toward the end of the card resulting in as many as sixty errors on a card. These errors were corrected by the visual check prior to cross tabulation of the columns dealing with the hypothesized relationships.

Validity

How to establish data validity presents a perpetual research problem, particularly in an exploratory study. Some researchers have pointed out how limited is the knowledge of how to directly improve validity by changing the question.[1] Following is data from a series of direct and indirect quotations taken from the schedules. They are presented only to give an indication of validity of the answers of some respondents in several subject areas and not to declare any overall validity of the study.

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[1]Stephen A. Richardson, Barbara S. Dohrenwend, and David Klein, Interviewing, Its Forms and Functions (New York: Basic Books, 1965), pp. 240-241.

Beliefs About Alternates and Consequences

Jobs and Means Beliefs

Without exception the students contacted were able to list a minimum of two occupations that they would consider. Eighty-nine percent listed three jobs or more and slightly over fifty percent listed four jobs, practically none of which were "glamour" jobs like movie star, detective or popular singer.[1]

An ability to list jobs does not preclude a uniform awareness of their characteristics and consequences. One junior male commented, "I don't think college bound students or high school seniors are that informed about their occupations before they get into it." A senior male concluded, "It's not too good of an evaluation of what I'm going to be doing because before I do anything I'm going to the library and find out opportunities and things." Several others cautioned that this was their present thinking and that they might end up in quite different jobs.

Despite the tentativeness of some selections others seemed to have fairly definite plans both in regard to the jobs and the necessary means to obtain them. One male senior in picking a job in printing similar to one in which his brother had been "successful" was not planning on college unless "offset printing required it." If college were required, he would want to go.

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[1]One male was seriously considering playing in a musical combo. However, this appeared "realistic" since the group he was in had appeared at several local entertainment shows.

In response to probes asking why they had little change in ranking of the jobs based upon jobs only as compared with their ranking on both job and means several respondents said they had considered all of these in the first ranking. A senior female said, "I had already investigated many fields and decided upon my alternatives . . ." In response to the question asking who had been the greatest influence on the choice to continue or not continue education beyond high school one female stated, "I have always wanted to go to college." Such statements support the assumption that individuals can distinguish between ends and means of an alternative even though they don't always do so. The degree to which this separation is made will have to be determined by analysis of group scores.

Reference Group Beliefs

Another major factor that I expected would be considered in an alternative was the respondents' views of the influence of reference groups. Here, also, comments show some who acknowledge their effects and others deny them. A female junior reversed a previous ranking with the comment, "My mother wants me to go to college." A volunteered statement by a female senior shows an awareness of one reference group's desires and of perceived training as well as a tendency to use a reference group that approves of her desired goal. In response to a question asking her to compare her feelings toward jobs, training costs, and parents, etc. views she wrote, "Parents and relatives feel I should be a nurse, but I really don't feel I could live up to being one. I really would like to be a typist and the only thing I'd have to do to get it is complete night school this fall. My friends and relatives

mostly agree with me." Another junior female indicated that her parents didn't care what type of job she obtained and that she didn't care what others thought.

Such individual statements do not necessarily represent those who completed the questionnaire without comment. Since individual examples of belief clearly separated from sentiment are limited a more inclusive indicator of group beliefs and sentiments is in the next section with sentiments toward reference groups.

Sentiments Toward Alternatives, Jobs, and Means

As considered in Chapter I sentiments may be found directed towards jobs and means either together or independently. While most of the respondents who were questioned after the schedule had been completed stated they thought they had considered more than just the job in the first ranking, a number pointed out distinctions they were making. In picking a pharmacy job over that of a beautician, a junior female said, "I just like to go on to school and I miss it." A senior male speculated that he might take a construction job because it was "Good hard work. I like it."

Several others made value judgments that are likely indicative of feelings. In ranking the jobs a junior male commented that psychology required ". . . too much training . . ." A senior female made one selection over another because, in her words, "Courses would be easier. I've had my fill of the sciences and higher math." Another senior female switched two jobs in question 46 with the comment, "For the amount of training I'd enjoy teaching elementary more (than a visiting teacher) I believe." For some there seemed to be a real discrimination between sentiments toward the job itself and what he or she

believed was necessary to acquire that job. The following section shows a similar characteristic of sentiment toward reference groups.

Reference Group Sentiments

So as to obtain an appraisal by the respondents of the extent to which they considered others to have an influence upon their educational and occupational choices two open-ended questions at the end of the questionnaire asked for their evaluations. The person or persons given first in each question may be some indication of the perceived effect of various reference groups. Perceived effect does not necessarily constitute the actual effect of the reference group but it may illuminate how the sample assessed the influence of others.

Table 1 gives those proportions of the total sample who listed first whom they considered to be of most influence in their choice to continue or not to continue school after high school.

TABLE 1

PERCENT CONSIDERING SPECIFIC REFERENCE GROUPS AS MOST INFLUENCE ON CHOICE OF POST HIGH SCHOOL EDUCATION

Reference Category	Percent
Parents or mother and father	46.4
Mother (father not mentioned)	9.8
No one - only self	9.8
Professionals	8.7
Other relatives	6.6
Friends at school	4.9
Girl or boy friend	2.7
Father (mother not mentioned)	1.1
Others	6.6
No reply	3.3
Total	99.9

N = 183

With over 85% mentioning some person or group as influential in their educational choice and under 10% claiming not to have been influenced by anyone there is reason to suspect that most of this sample had some feelings about what some people around them thought about their advanced education. Although the proportion claiming not to have been influenced by anyone increased to 16.4% in answer to the question about influencing job choice there is still a large majority of over 78% that admit some group effects. If it can be assumed that admission of influence is evidence for the presence of sentiment, then most of the sample shows sentiments toward some reference group.

Individual expressions of affective involvement with reference groups show both positive and negative sentiment. A senior female whose first most serious choice was dental assistant said, "I may some day try practical nursing. My mother is a nurse and it would please her." A junior male concluded that how his parents felt was more important than how he felt about preparation for a job.

Negative sentiments toward a family grouping were illustrated by two seniors. One female preferred art but was planning to major in French. It later developed that she did not want to be continually in the shadow of her sister who was enrolled in an art school. Somewhat disturbed by the contradiction brought out in the interview she seemed to resolve it with, "I'm going into French and Betty is going into art." The other example was a male planning to drive heavy equipment contrary to his father's desires for him to be a white collar worker. His father's comment was, "There is no longer any communication." (between them.)

Reliability

Several questions in the schedule ask for approximately the same information or approach the subject matter in a slightly different manner. Some of them may be on the border line between a reliability and a validity check. However, in the absence of repeating the study upon the same group similar questions should give an indication of reliability if both responses are similar.[1] Most of those students who planned to continue school after high school would also be expected to say they would go on after high school if they had the financial support. These proportions were quite close with 74% planning to continue after high school and 75.4% saying they would go on to school if they could obtain the money.

As explained above, if we want to see if students would pick the same jobs we could give them the same questionnaire at two different times. Two questions in the schedule had a somewhat similar effect. After the students were asked to rank the jobs based upon "most serious intent" and again after they ranked the jobs based upon "most likely to have" they were asked if there was respectively another job they more seriously intended to get and another job they were more likely to have. Results showed 6.6% said yes to the first question and 8.7% said yes to the second. While it is not conclusive how this six to nine percent would have considered these "extra" jobs had they been questioned later they do show some uncertainty about jobs being considered. Analysis of the reasons given for considering these jobs all fall under the three

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[1] S.A. Richardson, B.S. Dohrenwend, and D. Klein, Interviewing, p. 168.

categories of enjoyment, as a means or because already qualified, and high opportunity and enjoyment. Even if these jobs that were considered on second or third reflection were given a second administration the reasons for choosing them indicate little change between sentiment and choice.

Analysis of Data

Within this study the data can be divided into two large categories. The first is represented by those situations where I asked respondents to rank the same set of categories on two or more criteria. If they based one of their rankings upon their memory of another ranking, then the two rankings would not be independent as independence is conceived by some definitions.[1] However, such an independence requirement cannot be fulfilled whenever a person is required to rank the same set of objects on more than one basis unless the researcher can devise some means by which he can be assured the respondent has no recollection of the first ranking. In order to obtain an increasing number of sentiments toward the alternatives it was believe that several rankings of the jobs would be necessary. So as to compare these rankings Kendall's tau b was used as a measure of relative, not absolute, degree of association for the data dealing with the subsample formed from all those considering four jobs.[2] All four jobs for each of the 92 respondents were used for each relationship such as "intent to acquire" cross tabulated with rank they believed their mother would

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[1] Don Lewis and C.J. Burke, "The Use and Misuse of the Chi-square Test," Psychological Bulletin, Vol. 46 (1949), pp. 437-438.

[2] Maurice G. Kendall, Rank Correlation Methods (New York: Hafner Publishing Company, 1962), pp. 45-46.

give the jobs. This procedure results in an N based upon number of choices instead of the number of respondents. Since no tests of significance are performed and the supporting theory attempts to predict individual choice this technique was thought best to present the results. Additional justification comes from the difference of a .43 between the largest and smallest tau b for the rankings given on the four jobs. Such a large difference would not be expected if respondents used only memory in giving each of the rankings.

In order to test for differences between males and females in the way sentiment was related to behavior Kendall rank correlation coefficients were computed for each respondent selecting four jobs.[1] The coefficients were then dichotomized into high and low and cross tabulated with males and females.

Another related portion of this study asked students to rank ten possible reference group categories based upon (1) Time spent with them; (2) Enjoyed being with them; (3) Time spent talking about jobs with them; (4) Enjoyed talking about jobs with them. This ranking of the same ten categories upon different criteria presents some of the same problems as did the previously mentioned ranking of four jobs.

It is possible that respondents could have made any of the latter ranking based partly or entirely upon memory of how they made the first rankings. However, precautions were taken to reduce this effect.

These questions were placed in the latter portion of the schedule so that respondents had previous experience ranking the same objects upon different criteria. In order to emphasize differences the words

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[1]Sidney Siegel, Non-parametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, inc., 1956), pp. 213-219.

used to tap the intended dimension were capitalized. Individuals are also probably less likely to memorize the ordering given for ten categories than for four.

Taking these limitations into consideration in interpreting the results comparisons were made between the rankings given the ten categories of reference groups. Spearman's rank correlation coefficient was used as an indicator of relationship between enjoyment with a particular reference group category and time spent with that reference group.[1] Rank correlation coefficients were figured for the proportions selecting the first rank as well as the proportions selecting the first two ranks and the proportions selecting the first three ranks.

As a more inclusive indicator of the connection between sentiment (enjoyment) toward each particular reference group and several other variables such as time perceived to be spent with the reference group the corrected contingency coefficient was calculated from chi square values.[2]

The second large data category consists of those variables such as father's occupation, number of jobs selected, and number of checks made desiring more information. These are less likely to be influenced by the respondent's memory of his answer on previous questions. All the hypotheses using such data were tested by compiling contingency tables and calculating the chi square for these tables. Where

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[1] Ibid., pp. 202-213.

[2] Helen M. Walker and Joseph Lev, Statistical Inference (New York: Henry Holt and Company, 1953), Chapter IV.

it was necessary to combine categories to preserve a minimum expected cell frequency of five or more the marginals were equalized as much as possible.

Male-Female and Interview-Questionnaire Comparisons

Subsample

In the theoretical discussion of how sentiment is related to behavior it is hypothesized that the two variables have the same relationship in both males and females. In order to test this hypothesis the subsample of 92 respondents who considered four jobs were compared on eight relationships to determine if there were any differences between males and females or between questionnaires and interviews.

For each student there were eight pairs of rank order relationships. The numerator of Kendall's tau was calculated for each relationship.[1] These were dichotomized into high and low scores which were cross-tabulated in 2 X 2 tables with either sex or technique of gathering the data as the other variable. Yates' correction was applied to all 2 X 2 tables in the study to guard against an inflated chi square.[2]

With one exception no significant differences were found between male and female or questionnaire and interview categories. These categories were therefore all considered together in testing the major hypotheses.

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[1] S. Siegel, Non-parametric Statistics, pp. 213-223. As used by Siegel and here the numerator is designated as an S score.

[2] H.M. Walker and J. Lev, Statistical Inference, pp. 105-107.

Two caveats were presented. First, the lack of significant differences between males and females on these variables should not be taken to mean that sex had no effect on all other relationships. When male-female differences were suspected of being strong, as in mother's or father's influence on educational and occupational choices, males and females were cross tabulated separately.

Secondly, there was a tendency for the *S* scores to be higher for interviews as compared with questionnaires and the one significant chi square -- at the .05 level -- was in the direction of the interviews. A possible, but unsubstantiated, explanation for this tendency is that the interview situation permitted more clarification of these more complicated questions than did the social atmosphere of the small group under which the questionnaire was administered.

Total Sample

Six variables were each cross tabulated with the sex variable in an effort to determine some of the effects the male or female status may have upon the results. Table 2 gives the results of the chi square values.

It can be seen that female-male differences on these selected variables did not approach significance at the .05 level. As stated for the previous male-female comparison this is presented only to justify analyzing males and females together in connection with some variables relating choice and sentiment and does not imply a lack of male-female differences.

Because most of those who were interviewed were composed of students who would not or did not come in to fill out the questionnaire in the small group situation they could be expected to differ on some

TABLE 2

SEX CROSS TABULATED WITH SIX VARIABLES

Variable	χ^2	P	N[a]
Grade	.83	.50	175
Five Year Plans	1.01	.50	183
Specific Requirements for Job 1	2.36	.75	182
Specific Requirements for Job 2	.65	.90	183
Plans after High School	.75	.90	181
Number of Schools Listed . . .	6.53	.25	183

[a]N's differ because those in grades below junior were excluded from the grade analysis and as the result of a few incomplete answers in others.

social traits. Table 3 shows significant differences for the extent which they said they had been thinking about their job plans, the number of specific requirements they listed for job 1, and the number of schools they listed.

On the three variables of five year plans, stated requirements for job 1, and the number of schools listed there were differences significant beyond the .05 level. A smaller percentage of those interviewed claimed they had more seriously considered their plans for the next five years, while a larger percentage of those interviewed gave more specific requirements that they considered necessary to acquire job 1. In selecting post high school formal education a large proportion of those interviewed were in the <u>not applicable</u> category and hence not planning on further schooling. It was also true that a smaller percentage of those interviewed were considering three or more colleges or technical schools.

TABLE 3

QUESTIONNAIRE AND INTERVIEW CROSS TABULATED WITH SIX VARIABLES

Variable	Questionnaire	Interview	N	Pr. of χ^2
Grade				
Senior	69.3[b]	62.2		
Junior	30.7	37.8	175	.50
n[a]	101	74		
Five Year Plans				
a lot	61.5	50.6		
some	35.6	36.7		
very little	2.9	12.7	183	.05
n	104	79		
Requirements On Job 1				
0-1	31.7	15.2		
2-3	44.2	51.9		
4+	24.0	32.9	183	.05
n	105	79		
Father's Occupation				
highest	37.1	22.8		
middle	33.7	35.4		
lowest	29.2	41.8	168	.10
n	89	79		
Requirements On Job 2				
0-1	38.5	24.0		
2-3	44.2	48.1		
4+	17.3	24.9	183	.10
n	104	79		

[a] n's vary because of no replies and not codeables.

[b] percentages

TABLE 3 -- Continued

Variable	Questionnaire	Interview	N	Pr. of χ^2
Plans to Continue Schooling After High School				
Yes	77.5	73.4		
No	13.7	22.8		
don't know	8.8	3.8	181	.10
n	102	79		
Number of Schools Listed				
0-1	22.1	13.9		
2	18.3	36.7		
3+	48.1	29.1		
not applicable	11.5	20.3	183	.005
n	104	79		

Although most of these differences are not likely to influence most of the hypotheses tested and some, such as number of schools listed, may be an artifact of social stratification they must be considered in interpreting those relationships where they may be relevant. While not significant at the .05 level, there were over 12% more of those interviewed whose fathers' occupations were classified in the lowest strata.

Construction of Tables

Some of the tables were taken directly from the Michigan State University computer printout as programmed under Act II. A desk calculator was used to obtain Kendall's tau b, Spearman's rho, and those chi squares obtained after combining categories.

For those relationships concerned with sentiments toward and time spent with reference groups a counter sorter was used to construct the distributions. Chi square calculations were then all double checked with the desk calculator. Chapter IV presents the results of the study.

CHAPTER IV

PRESENTATION AND ANALYSIS OF RESULTS

Introduction

In this chapter the data will be reported in three major sections. The first summarizes principal social characteristics as a point of departure for the second part which provides tests of the hypotheses developed in Chapter II. In the third part are cross tabulations of social variables related to occupational choice. Although these latter variables are peripheral to the immediate central interest of the research they give an added perspective on the students studied.

Social Characteristics of the Sample

Both of the two major variables of belief and sentiment are assumed to be derived mainly from the individuals' social milieu.[1] His or her statuses and respective roles provide positions giving the person a greater chance to observe different parts of the social structure and, hence, to develop beliefs as a result of these selective

[1] While Kaplan points out that this is the position more often taken, the chapter authored by him tends to emphasize the part the personality plays in the social system. Bert Kaplan, "Personality and Social Structure," Review of Sociology, Analysis of a Decade, (New York: John Wiley and Sons, Inc., 1957), p. 88.

perceptions.[1] Following are social traits with varying degrees of connection to the occupational behavior of high school juniors and seniors.

TABLE 4

PERCENTAGE DISTRIBUTION OF FATHER'S OCCUPATION BY SEX

Father's Occupation[b]	Sex	
	Males	Females
81-95	16.25	14.61
66-80	60.00	40.45
51-65	18.75	37.08
36-50	5.00	7.87
Total	100.00	100.00
N	80	89

[a] $\chi^2 = 8.882$; 3 d.f.; $p < .05$

[b] Father's occupation is classified according to the Duncan Index transformed to the NORC scales.

Sex as a Variable

Of the completed schedules 47% were from males and 53% were from females. For the following three variables run against sex several differences are noted in the relative proportions of males and females in several categories. All are significant at the .05 level or less.[2] Table 4 shows the distribution of father's occupational status as related to sex in this sample.

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[1] Tamotsu Shibutani, Society and Personality, pp. 254-255.

[2] N's vary in these tables since "no replys" were not included in some of them.

TABLE 5

PERCENTAGE DISTRIBUTION OF JOB 1 PRESTIGE BY SEX

Transformed Duncan Index of Job 1	Sex	
	Males	Females
86-95	9.30	4.55
81-85	15.12	4.55
76-80	22.09	23.86
71-75	17.44	43.18
61-70	22.09	13.64
51-60	13.95	10.23
Total	99.99	100.01
N	86	88

[a] $\chi^2 = 18.16$; 5 d.f.; $p < .005$

TABLE 6

PERCENTAGE DISTRIBUTION OF JOB 2 PRESTIGE BY SEX

Transformed Duncan Index of Job 2	Sex	
	Males	Females
86-95	14.11	2.33
81-85	12.94	7.06
76-80	22.35	22.35
71-75	12.94	37.65
61-70	21.18	20.00
41-60	16.47	10.59
Total	99.99	100.00
N	85	85

[a] $\chi^2 = 19.98$; 5 d.f.; $p < .005$

While there is only a small difference between the proportions of females and males in the highest prestige category a much larger difference is found in the lower occupational categories. Assuming this is not the result of a biased sample or of lower status parents having more female children it would seem that, perhaps, there is more loss of lower strata males than females during the first two high school grades. This could result from the pressures for lower status males to drop out to work and for lower status females to remain in school to meet eligible males. Even though the differences are not large the estimated school drop out rate for 16 and 17 year olds for the U.S. in 1960 does show a larger proportion of females enrolled in school.[1]

Not only did males and females consider different jobs but the status categories for the two jobs receiving the most positive sentiment were significantly different. Tables 5 and 6 illustrate how a larger proportion of females made potential job selections in the middle as compared with the high or low prestige ratings. Table 5 relates those jobs most liked (job 1) when considering only the job and Table 6 relates those jobs (job 2) given second ranking based upon liking (sentiment) for the job only.

In both Tables 5 and 6 a larger proportion of males selected those higher and lower prestige jobs than did the females. To some extent these female job choices may reflect those occupational positions

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[1]U.S. Bureau of the Census, U.S. Census of Population: 1960. Subject Reports, School Enrollment (Final Report PC (2) - 5A; U.S. Washington, D.C.: Government Printing Office, 1964), Table 7.

available to them. In 1960 the two categories of clerical and kindred workers and service workers respectively ranked one and two in the number of women employed in Michigan.[1] Both contain relatively middle prestige occupations.

TABLE 7

PERCENTAGES OF GRADE BY JOB 1 PRESTIGE

Transformed Duncan Index of Job 1	Grade	
	Seniors	Juniors or Less
86-95	9.17	3.17
81-85	9.17	11.11
76-80	23.85	22.22
71-75	29.36	33.33
61-70	15.60	20.63
41-60	12.84	9.52
Total	99.99	99.98
N	109	63

[a] $\chi^2 = 3.42$; 5 d.f.; $p < .75$

Grade Level

In the process of eliminating some of those jobs which might be considered "unrealistic" because they are difficult to obtain we might expect juniors to select jobs of higher prestige than would seniors. Such a result did not materialize. Tables 7 and 8 show no

[1] U.S. Bureau of the Census, U.S. Census of Population: 1960. Detailed Characteristics, Michigan (Final Report PC (1) - 24 D; Washington, D.C.: U.S. Government Printing Office, 1962), Table 120, pp. 24-474 - 24-479.

significant differences even though there are minor percentage differences.

Although this data is greatly limited it does not show any major change in occupational goals between the junior and senior years.

TABLE 8

PERCENTAGES OF GRADE BY JOB 2 PRESTIGE

Transformed Duncan Index of Job 2	Grade	
	Seniors	Juniors or Less
86-95	8.18	8.62
81-85	9.09	10.34
76-80	25.45	17.24
71-75	23.64	29.31
61-70	20.91	20.69
41-60	12.73	13.79
Total	100.00	99.99
N	110	58

[a] $\chi^2 = 1.70$; N.S.

Educational Plans

As all schedules were administered after the school year most of the seniors had completed high school. A few mentioned they lacked a part or whole credit to finish. For both juniors and senior slightly over 95% said they had completed or were planning to finish high school. The rest did not answer the question.

A majority of 74.9% of the sample said they planned to continue school after high school. About 17% said they did not and around 6% didn't know.

TABLE 9

PERCENTAGES OF STUDENTS CONSIDERING DIFFERENT NUMBERS OF SCHOOLS

Number of Schools	Percent
None[a]	7.7
1	10.9
2	26.2
3	37.7
3+	2.2
Not applicable[b]	15.3
Total	100.0
N	183

[a]Said they planned to continue after high school but did not list any school.

[b]Said they did not plan to continue after high school.

Most of those who were planning to continue their formal education after high school or who were unsure of their plans indicated the names of one or more schools they had thought about attending. In fact about 2% who said they were not listed one or more schools and answered questions about one of them. Table 9 shows what proportions of the sample said they were considering varying numbers of schools.

Even if we assume that all of those who said they were planning on post high school formal training and did not or could not list any school were unlikely to continue this leaves a total of 77% who showed some indication of an intent to continue further formal schooling. Although a portion of these listed trade schools, many of the schools were four year colleges. The total considering Michigan State University, the University of Michigan, and schools out of the state of Michigan as the one they would most like to attend was 35%. An additional undetermined proportion of those selecting "Kalamazoo area" and "other Michigan"

schools were preferences for two or four year colleges. Because no distinction was made in the coding between trade schools and colleges the size of this added percentage is not known. However, even the above most conservative figure of 35% reflects the increasing interest in attending some college.

TABLE 10

PERCENTAGE OF STUDENTS ESTIMATING YEARLY COST OF INTENDED SCHOOL

Estimated Yearly Cost	N	%
Over $2,500	1	.3
$2,000-2,500	13	7.1
$1,500-2,000	12	6.6
$1,000-1,500	22	12.0
$500-1,00	24	13.1
$250-500	36	19.7
Less than $250	5	2.7
Don't know	26	14.2
No reply	5	2.7
Not applicable[a]	39	21.3
Total	183	99.9

[a]Includes all those who were not considering post high school training as well as those who did not answer questions about a specific school they were considering attending.

Financial Considerations

All those students who named one or more colleges or trade schools were also asked to estimate the yearly cost of attending one of the schools they said they had considered entering. Almost 70% of the total sample picked the school they "most seriously planned to attend." Table 10 shows the distribution of the yearly cost estimates for that one school.

When those students who were planning post high school education were asked if they thought they could meet their estimated yearly financial requirement of attending school, approximately 72% said yes, a little over 6% said no, about 16% were uncertain, and the rest did not reply.

TABLE 11

PERCENTAGES INTERESTED IN SCHOLARSHIPS, LOANS, AND PART-TIME JOBS

Degree of Interest	Scholarships	Loans	Part-time Jobs
Very interested. . .	47.0	13.7	51.4
Slightly interested	20.8	21.9	15.3
Not interested . . .	8.2	30.6	7.1
No reply	10.4	20.2	12.6
Not applicable[a]. . .	13.7	13.7	13.7
Total	100.1	100.1	100.1
N	183	183	183

[a]Includes only those who said they would not go on to college if they could obtain the money to do so.

As a source of non-family financial support students shied away from possible loans. Table 11 shows this reluctance.

Close to one-half of the total sample claimed to be very interested in either scholarships or part-time jobs, while slightly under 14% declared themselves very interested in a loan. Apparently education is on a "pay as you go" basis for most of this group.

One means of increased family support for some students wanting college training is for the mother to take a job other than that of a housewife. Slightly over 43% of the sampled students said their mothers worked outside the home. This breaks down into 29% who were working full time and about 14% part-time.

TABLE 12

PERCENTAGES PARENTS FINANCE COLLEGE BY MOTHER'S OCCUPATIONAL STATUS

Mother's Status	Could Parents Finance College?			N
	Yes	No	Totals	
Mother works.	58.7	41.3	100.0	75
Mother doesn't work .	68.0	32.0	100.0	100

[a] $\chi^2_y = .007$

[b] N.S. as used in this study means not significant at the .05 level.

Such a large percent of working mothers is not inconsistent with the trend of an increasing proportion of females in the labor force in 1962 at the time this study was made.[1] Of course, working mothers do not necessarily mean that this income is available for occupational or educational training.

Some indication of the capability of parents to finance their children's education can be secured from a question asking the students

[1] U.S. Bureau of the Census, Pocket Data Book, U.S.A. 1967 (Washington, D.C.: U.S. Government Printing Office, 1966), p. 132.

if they thought their parents could afford to sent them to college. A little over 61% said yes, while 35% said no, and the rest either weren't sure or did not reply.

In an attempt to determine if the added income from working mothers was being channeled into college degrees the two preceding variables of "mother working" versus "parents afford to send you to college" were cross tabulated. Table 12 shows the results.

Although there are too many uncontrolled variables such as strata and sex to make final statements these figures do show a higher proportion of those whose mothers work saying their parents could afford to send them to college but it also true that even a larger proportion of those whose mothers don't work say their parents could finance their college training. Cross tabulating mother's work status with parent's ability to finance college adds little in explanation. As significance was not reached at the .05 level the data shed little light on the importance of mother's income for their children's college education.

A question of some social concern is what fraction of those who desire to go on to college are able to obtain the money to do so. Despite the differences in wording and terminology between the question which asks for post high school formal education plans and the one which asks college plans we can compare the proportion who elaborated on the former with that portion who stated they would go to college if they were financially able.

This comparison shows 77% of the sample planning on more formal education and a little over 75% saying they would go on to college if they could obtain the money to do so. Again it should be emphasized that an unknown fraction of the 77% were considering trade schools.

Section two of this chapter is divided into two parts. The first presents the data for tests of these hypotheses formulated about choice behavior. In the second the social structural hypotheses are tested.

Tests of Hypotheses

TABLE 13

SENTIMENT TOWARD JOB ONLY BY INTENT[a]

Rank of Job Based on Sentiment Toward Job[c]	Rank of Job Based on Intent				Total
	1	2	3	4	
1	17.0	6.1	2.3	.6	26.0
2	6.1	14.4	3.7	2.0	26.2
3	1.7	3.2	13.5	5.5	23.9
4	1.4	2.3	4.3	15.9	23.9
Total					100.0

[a]Figures in the table represent percent of total number of choices which is 347.

[b]Kendall tau b = .5628.

[c]Rank 1 is the highest.

Job Choice and Sentiments

Hypothesis 1

As pointed out in Chapter II the stated intent to seriously try to obtain one occupation over another is taken as an indication of choice behavior. Sentiment was operationally determined by rankings based upon how much respondents said they like one alternate as compared with another. In the next three tables the attempt is made to progressively increase the number of sentiments that are related to job selection. Table 13 shows the relation between serious intent to acquire a

job and sentiment toward the job only. It represents a partial test of derived hypothesis 1.

Those larger proportions falling in the diagonal from upper left to lower right and the Kendall tau b indicate a positive relationship between positive sentiment and behavior as represented by expressed occupational intent. However, the aforementioned precautions must be considered in interpreting all these tables where part of the relationship may be determined by a previously remembered ranking.

TABLE 14

SENTIMENT TOWARD JOB AND MEANS BY INTENT

Rank of Job Based on Sentiment Toward Job and Means[c]	Rank of Job Based on Intent[a]				Total
	1	2	3	4	
1	19.5	4.6	2.1	.3	26.5
2	4.9	14.9	4.3	1.5	25.6
3	2.1	5.2	12.2	4.9	24.4
4	.3	1.2	5.2	17.0	23.7
Total					100.2

[a]Figures in the table represent percent of the total number of choices which is 329.

[b]Kendall tau b = .6693.

[c]Rank 1 is the highest.

Hypothesis 2

Table 14 presents the results of attempting to stimulate sentiments towards both the jobs and what the student thought would be necessary to get the jobs as cross tabulated with the rank he gave

the jobs based upon his seriousness of intent to acquire them. Because of the increased number of sentiments, hypothesis 2 predicted a higher degree of positive relationship between the two variables.

In three of the four diagonal cells Table 14 has larger percentages than was the case for Table 13. The higher correlation between sentiment toward job with combined means and intent in Table 14 as compared with Table 13 is indicated by the larger Kendall tau. If Table 14 represents a greater number of sentiments that would actually be present at the time the job choice was made, and the measure of intent was accurate at the time it was taken, then it supports hypothesis 2 and the general hypothesis of sentiment being associated with choice.

Hypothesis 2a

Hypothesis 2a claimed that the relationship between sentiment and behavior in the major hypothesis would be shown by the positive correlation between the lack of information a person had about the means to some goal to which he had been committed and the degree to which he sought this information. As the operational indicators of these two variables, the number of times respondents answered no or don't know to a series of questions about the means to enter a college of their choice is cross tabulated with the number of items they checked as wanting more information. Table 15 shows the distribution which reveals a highly significant relationship between lack of knowledge about something important to the individual and behavior aimed at obtaining that information. While more of those with a high degree of uncertainty checked four or five items there was a greater tendency for those lacking information to check two or three items about which they were interested.

TABLE 15

LACK OF INFORMATION BY NUMBER OF ITEMS FOR WHICH INFORMATION IS DESIRED

Number of No's and Don't Knows	Number of Items Checked Wanting Information			Total[a]
	0-1	2-3	4-5	
0-1	72.1	20.9	7.0	100.0
2-3	29.2	54.2	16.7	100.0
4-8	16.7	63.9	19.4	100.0
N				127

[a]Percents

[b]$\chi^2 = 28.91$; d.f. = 4; $p < .001$; $C_c = .5826$

Did the number of no's and don't knows reflect how students evaluated their knowledge about entrance requirements? An answer is provided by the question which directly asked for a self evaluation. Thus, we have both an "objective" and a subjective evaluation of information on entrance requirements cross tabulated with the amount of information desired. This second cross tabulation is seen in Table 16.

Those who considered themselves well to very well informed had no one who checked over three items wanting more information while about 24% of those who classified themselves as not well or poorly informed checked this many. This direct relationship generally follows for most of the table. Both objective and subjective measures of lack of information are similarly related to preliminary actions taken toward obtaining that information.

TABLE 16

SELF JUDGMENT OF HOW WELL INFORMED BY NUMBER OF ITEMS ON WHICH MORE INFORMATION IS DESIRED

How Well Informed	Number of Items About Which Want More Information					Total
	0	1	2	3	4	
Very well informed	38.5	38.5	12.8	10.3	0	100.1
Well informed	4.3	27.7	25.5	25.5	17.0	100.0
Not well to poorly	9.8	4.9	39.0	22.0	24.4	100.1
N	21	30	33	25	18	127

[a]Percents

[b]$\chi^2 = 43.63$; d.f = 8; $p < .001$; $C_c = .624$

The question concerning self rating on amount of information asked how well did students <u>feel</u> they were informed about entrance requirements. As stated it asked for both belief and sentiment about information in a specific area. Provided we can assume that being well informed about entrance requirements to a school one plans to attend stimulates few positive sentiments toward seeking more information, then, we expect fewer strong positive sentiments for the alternatives of checking items for more information. In a similar manner, if those who admit to being poorly informed have negative feelings toward this state of affairs, the presentation of the alternate that permits them to state either to themselves or to the interviewer a desire to remedy the lack of information would likely be a positive alternate.

TABLE 17

SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS BY INTENT

Rank of Job Based on Sentiment Toward Job, Means, and Reference Groups[c]	Rank of Job Based on Intent[a]				Total
	1	2	3	4	
1	20.6	3.7	2.1	.3	27.6
2	3.4	15.6	5.5	1.5	26.0
3	2.8	3.4	12.6	4.9	23.7
4	.6	2.4	3.7	16.9	23.6
					100.0

[a]Figures in the table represent percent of the total number of choices which is 326.

[b]Kendall tau b = .6641.

[c]Rank 1 is the highest.

Hypothesis 3

Hypothesis 3 carries one step further the idea of locating as many of those sentiments as possible that are relevant at the time the decision is made. In Table 17 an attempt is made to correlate job intent with sentiment toward the job, means, and reference groups' views of the job. Parents are the only reference group specifically mentioned in the question even though it was intended to have respondents consider all who might have an effect.

Although three of the four diagonals have larger proportions of the total number of choices in them than was true for Table 14 the increase is relatively small. Even though in the predicted direction the increases of one percent or less and the slightly smaller tau do

not indicate any increase in predictability by asking respondents to consider reference groups. However, it should not be concluded that reference groups have no effect. While we have no measure of the magnitude of the effect of all reference groups we do have an indication of how much respondents who considered four jobs thought various specific reference groups agreed with their plans to enter occupations they were considering.

TABLE 18

RANKING OF FOUR JOBS BASED UPON INTENT TO ACQUIRE BY RATING ATTRIBUTED TO REFERENCE GROUPS

Students' Ranking Based on Intent to Acquire	By Students' View of	Kendall Tau b
1	Rank Father Gives	.4979
2	Rank Siblings Give	.4484
3	Rank Others Give[a]	.3970
4	Rank School Counselor Gives	.3890
5	Rank Mother Gives	.3738
6	Rank School Friends Give	.3561
7	Rank Friends Outside of School Give	.3101
8	American People Give	.2726

[a]Refers to specific groups such as relatives, college students, professionals, etc. not listed on the schedule.

Table 18 presents the Kendall tau b rank order correlations between the ranking given to four jobs based upon intent to acquire them and the rating the students thought various possible reference groups would give them.

TABLE 19

PERCENTAGES[a] GIVING VARIOUS GROUPS AS MOST IMPORTANT IN INFLUENCING THEIR OCCUPATIONAL CHOICES

Group	Percent Listing It First
Parents or mother and father	21.9
Professionals	19.1
No one -- only self	16.4
Others[b]	9.3
Mother (father not given)	7.6
Friends at school	7.1
Other relatives	6.0
Father (mother not given)	3.8
Girl or boy friend	3.3
No reply	5.5
Total	100.1

[a] N = 183

[b] Consists of friends of the family, high school graduates and others.

Provided memory of how respondents thought these groups ranked jobs was fairly uniform over these categories it seems that "fathers" and "siblings" was conceived as most agreeable and "Friends outside of school" and the "American people" were viewed as least agreeable with the students' own ratings. Having some groups agree or disagree with how you evaluate a job does not necessarily influence how you evaluate that job. Such an evaluation may well depend upon the individual's beliefs and sentiments about a particular reference group.[1]

The respondents' views of who most altered their occupational choice can be partially seen by their answers to the direct open-ended

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[1] R.K. Merton, Social Theory and Social Structure, p. 254; T. Shibutani, Society and Personality, Chapter 8, especially p. 261.

question asking who they considered the most important influence upon what jobs they picked. When only the first answer given is analyzed parents are most often mentioned. Table 19 lists these starting with the highest proportions.

Professionals such as teachers, counselors, and adults holding professional occupations are ranked second with denial of any influence occupying third importance. Despite a sizeable proportion who refused to admit the influence of any other individual upon the kinds of jobs they were considering, most of the students did name one or more people or groups as having some influence. This would indicate that the evaluations of reference groups are felt even though we lack a measure of the magnitude of that effect. How group pressures might have been manifested in the measurement of sentiment toward job alternates will be discussed in the next chapter.

While Table 19 is based upon the entire sample of 183 the reader should be reminded that Tables 13, 14, and 17 are based upon the subsample of 92 who considered four jobs. In regard to the entire sample the question arises as to whether there would also be an increase in the proportion of those selecting a particular job as additional sentiments related to that job are stimulated. Although a comparison based upon all jobs selected could not be made for all respondents because different numbers of jobs were chosen it can be made for job 1 for the complete sample regardless of whether they considered two, three, or four jobs. These results are presented in Table 20.

As sentiments toward the job, the perceived schooling required, and how possible reference groups view that job are brought in, Table 20 shows an increasing proportion of students who claim to be selecting a

TABLE 20

PROPORTIONS SELECTING JOB 1 AS RELATED TO SENTIMENT ATTACHMENTS

Job 1 Ranks First on	Rank of Job 1 on Intent to Acquire[b]		
	1	2, 3, or 4	Total
Sentiment for job only	77.1 (138)[a]	22.9 (41)	100.0
Sentiment for job and means	87.6 (120)	12.4 (17)	100.0
Sentiment for job, means, and parents' views	90.2 (119)	9.8 (13)	100.0

[a]Numbers in parentheses represent number of individuals.

[b]Percents

job consistent with their expressed sentiment toward that job and some of its social rewards and consequences. As the questions called upon respondents to consider more of the factors that could trigger their feelings toward job alternatives the proportion saying they planned to go into the job that they claimed had the greatest overall attraction increased from 77% to 90%. This is consistent with the data from the subsample analyzed in Tables 13, 14, and 17. It also supports the major hypothesis which says that the algebraic result of sentiment is associated with choice behavior.

Hypothesis 3a

If sentiment is associated with behavioral actions and these actions are positively related to the groups in which a person participates, then, as stated in hypothesis 3a, the net positive sentiment

should be positively related to the amount of time spent with a group. Self reported time spent with groups and relative enjoyment with these groups are used as indicators of actual time and actual enjoyment in relation to the respective groups.

Two types of analysis giving the relation between the reported time spent with a group and the sentiment for that group are reported here in summarized form. Comparing the two variables first on the basis of the proportions selecting each reference group category as ranking first we find a Spearman rho of .976. For the percentages of those considering each reference group category to be in the first two ranks the Spearman rho between "enjoy being with" and "time spent with" was 1.00. When the proportions placing each reference group in the first three ranks are compared with the same two variables the rho drops slightly to .952.

As explained in Chapter II a chi square test was performed for every table formed by the cross tabulation of reported sentiment with reported time spent in each of the ten reference group categories. These results are also summarized here in Table 21. Although these data support the hypothesis that claims sentiment to be related to behavior the precautions listed in Chapter II about independence must temper any conclusions that are made. Using the same ten categories of Table 21 and cross tabulating the two dimensions of: (1) enjoy talking about jobs with reference group, and (2) reference group gave information about jobs, provides data with which to compare the results of Table 21. These results in Table 22 also show a high degree of significance for

for eight of the ten categories. However, one is not significant and most have lower corrected contingency coefficients than do their counterparts in Table 21.

TABLE 21

TIME SPENT WITH BY ENJOY BEING WITH

Reference Category	N	d.f.	χ^2	P	C_c
Other people (general)[a]	157	4	32.06	.001	.558
Friends outside of School	140	4	77.84	.001	.810
Mother.	172	4	54.48	.001	.665
Friends at school	175	4	81.68	.001	.764
Radio, T.V., reading . .	152	4	58.08	.001	.712
Older brother or sister	131	4	70.52	.001	.801
Father.	147	4	48.40	.001	.820
Clergy.	134	4	49.79	.001	.703
Other (specific)[b].	60	1	11.47	.001	.629

[a]Intended to refer to the American people as a general, cultural influence.

[b]Refers to particular groups mentioned by respondents. Some of these were high school graduates, other relatives, and a girl friend or boy friend.

Even though there is just as much need to guard against over extension of interpretation here as in Table 21 the lower contingency coefficients and lack of significance in one category suggest the presence of more than a single set of sentiments in the relationships between sentiment and verbal statements of recalled events. In the theory presented no connection was described between sentiment about verbal interaction with a person or a subject and the perceived amount of information an individual obtained about that topic. However, a strong relationship might exist as the result of the instrument measuring the other sentiments that respondents had toward these groups.

TABLE 22

ENJOY TALKING ABOUT JOBS BY GAVE INFORMATION ABOUT JOBS

Reference Category	N	d.f.	χ^2	P	C_c
Other people (general)[a]	122	4	35.39	.001	.642
Friends outside of school	84	2	16.74	.001	.594
Mother	140	4	38.45	.001	.629
School friends	123	4	42.56	.001	.687
Radio, T.V., reading . .	75	4	30.87	.001	.731
Older brother or sister	81	4	46.65	.001	.819
Father	123	4	39.07	.001	.664
School Counselor	140	4	45.12	.001	.669
Clergy	67	2	1.16	.50	. .
Others (specific)[b] . . .	45	1	6.85	.01	.570

[a]Intended to refer to the American people as a general, cultural influence.

[b]Refers to particular groups mentioned by respondents. Some of these were high school graduates, other relatives, and a girl friend or boy friend.

Hypothesis 4

Hypothesis 4 maintained that sentiment would be related to behavior the same in females as in males. Rank order correlations between sentiment and verbally stated behavior should not vary significantly between males and females on their job orientations. Tests of this hypothesis are shown in the following three tables. Each table is composed of the number of each sex having high and low rank order indices between sentiment toward an alternate and verbally stated potential action toward that alternate.

Since none of the results of these three tables is significant they support the hypothesis that sex is not a relevant variable in the relationship between sentiment and behavior.

TABLE 23

SENTIMENT TOWARD JOB BY INTENT TO ACQUIRE JOB

S Score[a]	Females	Males
0 or less	13	14
Above 0	30	26
Total	43	40

[a]S scores range from -6 to +6.

[b]χ^2_y = .052; N.S.

TABLE 24

SENTIMENT TOWARD JOB AND MEANS BY INTENT TO ACQUIRE JOB

S Score[a]	Females	Males
-6 to + 4	22	24
+6	19	13
Total	41	37

[a]S scores go from -6 to +6.

[b]χ^2_y = .6; N.S.

While these findings do not deny, in any way, that the male and female statuses in a society usually result in them having some differing sets of beliefs and sentiments -- males and females do tend to think and act alike.

TABLE 25

SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS BY INTENT TO ACQUIRE JOB

S Score[a]	Females	Males
-6 to +2	13	9
+4 to +6	26	30
Total	39	39

[a] S scores go from -6 to +6.

[b] χ^2_y = .57; N.S.

Variation of S Scores

Even though sex was not expected to be significantly related to the S scores obtained and the relationship between stated sentiment and planned action goes in the direction predicted we can see from Table 25 that 22 of the 78 respondents have S scores that are below +4. From the theory presented in Chapter I we might expect all perfect S scores of +6, if all factors in the measuring situation were completely controlled. Recognition that such rigid requirements are not feasible in an exploratory study presses for an explanation of why low S scores are obtained.

Although every interview study may encounter a certain lack of cooperation from some respondents the type of explanation sought here assumes most of the causes of low S scores to result from a defficiency of theory or method. One theoretical lead would suggest that individuals who have sentiments toward a job that they did not give at the beginning of the interview had not thought a lot about these jobs. Lack of

serious consideration of their feelings toward the job requirements and what their reference groups would say would likely cause them to consider only a portion of these feelings in their rankings.

In anticipation that another job might emerge during the interview all respondents were asked if there was another job they were more seriously considering. Although the number who answered yes is too small in proportion to the total subsample to make a test of significance the distributions as they relate to S scores are presented in Tables 26, 27, and 28 as a partial answer for some of the low scores.

TABLE 26

S SCORE FOR SENTIMENT TOWARD JOB
AS RELATED TO INTENT BY
OTHER JOB MORE SERIOUS[a]

S Score for Job Sentiment by Intent	Other Job More Serious?	
	Yes	No
-6 to +4	83.3 (5)[b]	55.3 (42)
+6	16.7 (1)	44.7 (34)

[a]Percents

[b]Numbers in parentheses are cell frequencies.

In Tables 26, 27, and 28 the proportion of those with low S scores who say they are more seriously considering another job, other than the ones listed, is from 13 to 28 percent greater than for those who are not. Even though the numbers are small it provides an indication that one of the reasons for lower correlations may be the lack of strong sentiments toward the alternatives given.

TABLE 27

S SCORES FOR SENTIMENT TOWARD JOB AND MEANS AS RELATED TO INTENT BY OTHER JOB MORE SERIOUS[a]

S Score for Job, Means, Sentiment by Intent	Other Job More Serious?	
	Yes	No
-6 to +4	80.0 (4)[b]	58.3 (42)
+6	20.0 (1)	41.7 (30)

[a]Percents

[b]Numbers in parentheses are cell frequencies.

TABLE 28

S SCORES FOR SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS AS RELATED TO INTENT BY OTHER JOB MORE SERIOUS[a]

S Score for Job, Means, and Reference Group Sentiment by Intent	Other Job More Serious?	
	Yes	No
-6 to +4	66.7 (4)[b]	53.5 (42)
+6	33.3 (2)	46.5 (35)

[a]Percents

[b]Numbers in parentheses are cell frequencies.

An additional indicator of the connection between low S scores and the degree of sentiment attachment to the factors can be obtained from the number of requirements that individuals listed as what they thought necessary to enter a job. Although some of these were

educational requirements and other were personality traits they may give a rough indication of some of the sentiments involved in the perceived means to potential jobs.

TABLE 29

S SCORES OF SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS AS RELATED TO INTENT BY STATED JOB SPECIFICATIONS FOR JOB 1[a]

Number of Specifications for Job 1	S Score		Total
	-6 to +2	+4 to +6	
0-2	35.0 (7)[b]	65.0 (13)	100.0
3-6+	25.9 (15)	74.1 (45)	100.0

[a]Percents

[b]Numbers in parentheses are cell frequencies.

[c]χ^2_y = .245; d.f. = 1; N.S.

It is expected that those who have the higher degree of correlation between their stated sentiments toward job, means, and reference group evaluations and their stated job plans will tend to have expressed a greater number of requirements to get these jobs. A large number of expressed requirements would more likely be an indicator of greater occupational concern upon the part of the student and the increased probability of his crystallization of feelings toward those alternates. Tables 29, 30, 31, and 32 give an indication of how the two most closely related rankings are associated with job requirements as the students report them.

TABLE 30

S SCORES OF SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS AS RELATED TO INTENT BY STATED JOB SPECIFICATIONS FOR JOB 2[a]

Number of Specifications for Job 2	S Score		Total
	-6 to +2	+4 to +6	
0-2	60.0 (27)[b]	40.0 (18)	100.0
3-6+	48.5 (16)	51.5 (17)	100.0

[a]Percents

[b]Numbers in parentheses are cell frequencies.

[c]X^2_y = .606; d.f. = 1; N.S.

In all four of the tables the proportion of those who listed the larger number of items required to obtain a job and also had high S scores is about ten percent or greater than those who listed the smaller number and had low S scores. However, significance is reached for only job three. This implies that those who had more seriously considered the means of obtaining a job were less likely to rank jobs on a different criteria than the one used to select jobs. Students with weakly integrated sentiments in this area at the time would be more likely to vacillate in their rankings which could account for the lower S scores. These data reflect both the uncertainty of some students and the commitment of others at this point in the process of occupational choice.

TABLE 31

S SCORES OF SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS AS RELATED TO INTENT BY STATED JOB SPECIFICATIONS FOR JOB 3[a]

Number of Specifications for Job 3	S Score		Total
	-6 to +2	+4 to +6	
0-1	44.8 (13)[b]	55.2 (16)	100.0
2-6+	18.4 (9)	81.6 (40)	100.0

[a]Percents

[b]Numbers in parentheses are cell frequencies.

[c]$\chi^2_y = 5.06$; d.f. = 1; $p < .025$.

TABLE 32

S SCORES OF SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS AS RELATED TO INTENT BY STATED JOB SPECIFICATIONS FOR JOB 4[a]

Number of Specifications for Job 4	S Score		Total
	-6 to +4	+6	
0-1	61.8 (21)[b]	38.2 (13)	100.0
2-6+	50.0 (22)	50.0 (22)	100.0

[a]Percents

[b]Numbers in parentheses are cell frequencies.

[c]$\chi^2_y = .65$; d.f. = 1; N.S.

Beliefs as Influenced by Social Structure

Hypothesis 5

Hypothesis 5 predicts that people tend to "see," observe, and develop beliefs about those portions of the society in which they interact. Hence, those in the upper and middle strata consider careers from an array of medium to high prestige occupations. In a somewhat similar fashion those in the lower strata develop plans leading to employment and jobs that are not as high in the prestige structure.

The next four tables, Tables 33, 34, 35 and 36, test hypothesis 5 starting with job 1 and going to job 4. Job 1 through job 4 are designated by the respondents, presumably based upon only the jobs' desirability unencumbered by the problems of acquiring them.

For jobs 1 and 3 the data support the view that there is a tendency for those in the upper strata to consider upper strata jobs more often and for those in the lower strata to more seriously think about lower strata jobs. While significance was not reached for jobs 2 and 4 the trend was in the same direction.

It should be remembered that while the jobs given are those the students had been thinking about they do not necessarily represent the one job the students were most seriously considering. When four jobs were considered, either job 1,2,3, or 4 could have been the one they were planning to enter. How these jobs were ranked when students were asked the ones they intended to obtain depends upon other factors such as the means and reference groups involved.

Had the respondents been told, at the beginning of the schedule, to pick the most desirable job they could imagine this class difference might have been less. The fact that these were reasonably serious selections supports those who maintain there are class differences in occupational plans.[1]

TABLE 33

TRANSFORMED DUNCAN INDEX OF FATHER'S OCCUPATION BY DUNCAN INDEX OF JOB 1

Prestige Index of Father's Occupation[a]	Prestige Index of Job 1			Total[c]
	95-81	80-71	70-51	
81-95	33.3	50.0	16.7	100.0
71-80	21.2	51.9	26.9	100.0
31-70	8.3	54.8	36.9	100.0
N				160

[a]Higher scores represent high prestige jobs.

[b]$\chi^2 = 11.23$; d.f. = 4; $p < .025$; $C_c = .347$.

[c]Percents

[1]R.M. Stephenson, "Mobility Orientation and Stratification of 1,000 Ninth Graders," pp. 204-212.

TABLE 34

TRANSFORMED DUNCAN INDEX OF FATHER'S OCCUPATION
BY DUNCAN INDEX OF JOB 2

Prestige Index of Father's Occupation[a]	Prestige Index of Job 2			Total[c]
	95-81	80-71	70-51	
81-95	26.9	50.0	23.1	100.0
71-80	19.6	54.9	25.5	100.0
51-70	16.0	40.7	43.2	99.9
N				158

[a]Higher scores represent higher prestige jobs.

[b]$\chi^2 = 6.65$; d.f. = 4; $p < .25$; $C_c = .272$.

[c]Percents

TABLE 35

TRANSFORMED DUNCAN INDEX OF FATHER'S OCCUPATION
BY DUNCAN INDEX OF JOB 3

Prestige Index of Father's Occupation[a]	Prestige Index of Job 3			Total[c]
	95-81	80-71	70-51	
81-95	26.1	43.5	30.4	100.0
71-80	14.0	54.0	32.0	100.0
51-70	10.3	33.8	55.9	100.0
N				141

[a]Higher scores represent higher prestige jobs.

[b]$\chi^2 = 10.62$; d.f. = 4; $p < .05$; $C_c = .358$.

[c]Percents

TABLE 36

TRANSFORMED DUNCAN INDEX OF FATHER'S OCCUPATION BY DUNCAN INDEX OF JOB 4

Prestige Index of Father's Occupation[a]	Prestige Index of Job 4		Total[c]
	95-76	75-41	
76-95	58.6	41.4	100.0
41-75	34.7	65.3	100.0
N			78

[a]Higher scores represent higher prestige jobs.

[b]$\chi^2 = 3.32$; d.f. = 1; $p < .10$.

[c]Percents

Hypothesis 6

Another of the results of stratification was posited in hypothesis 6. Therein it was maintained that those in the higher socio-economic strata of the society would subjectively have more job opportunities than those in the lower strata and would express those occupational potentialities by listing more jobs than they were considering.

The data in Table 37 uphold this contention. Substantially more of those whose fathers were in higher prestige occupations selected three and four jobs than of those whose fathers were in lower prestige occupations. Only one student whose father's occupation was classified above 75 on the transformed Duncan Index listed fewer than three admissible career possibilities.

TABLE 37

NUMBER OF JOBS CONSIDERED BY FATHER'S OCCUPATION[a]

Number of Jobs	Prestige of Father's Occupation		
	95-76	75-61	60-31
2	1.9[d]	9.9	28.3
3	38.5	39.4	30.4
4	59.6	50.7	41.3
Total	100.0	100.0	100.0

[a]Higher scores represent higher prestige.

[b]N = 169

[c]χ^2 = 16.54; d.f. = 4; $p < .005$; $C_c = .404$

[d]Percents

Hypothesis 7

In hypothesis 7 it was predicted that of those who were considering college training those in the upper strata would list larger numbers of potential schools than would those in the lower strata. Table 38 shows the results of the cross tabulation of father's occupation with the number of schools listed.

Even though there are twice as many of those in the lowest prestige category who considered two or fewer schools than considered three or more the difference is not enough to reach significance at the .05 level. This tendency gives only limited support to the position that those in the lower strata who plan on post high school education see fewer educational alternatives than upper strata individuals. However, it should be kept in mind that there are four year

colleges, junior colleges, and commercial training programs within easy commuting distance of the students in the sample. Hence, a student could live at home and have several schools from which to choose.

TABLE 38

PRESTIGE OF FATHER'S OCCUPATION BY NUMBER OF SCHOOLS LISTED

Prestige of Father's Occupation[a]	Number of Schools Listed		Total
	Two or Fewer	Three or More	
76-95	43.5[c]	56.5	100.0
61-75	50.8	49.2	100.0
41-60	66.7	33.3	100.0
N			143

[a]Higher scores represent higher prestige.

[b]$\chi^2 = 4.47$; d.f. = 2; $p < .20$.

[c]Percents

That there was a connection between the students' residence plans while in school and his estimate of its cost is shown in Table 39.

If the lower strata student planned on additional formal education, he could realistically consider almost as many schools as did the upper strata student.

TABLE 39

STUDENT'S RESIDENCE PLANS BY VIEW OF COST OF SELECTED SCHOOL

Student's View of Yearly Cost of Selected School	Student Lives at Home?	
	Yes	No
$1,500-2,000[a]	4.6[c]	60.0
500-1,500	41.5	34.3
Less than $500	53.9	5.7
Total	100.0	100.0
N		143

[a]Included is one student who estimated yearly cost at over $2,000.

[b]$\chi^2 = 43.64$; d.f. = 2; $p < .001$; $C_c = .260$.

[c]Percents

Stratification, Group Influence, and Occupational Choice

From the two open-ended questions asking for the students' views about who most influenced their educational and occupational behavior we find several differences between those in upper and lower strata. While most of those concerned with education are not significant at the .05 level part of the difficulty arises from the method that permitted a large number of categories resulting in small expected frequencies in some cells. Table 40 gives a composite of three reference categories that male and female respondents claimed had contributed to their decision about formal education.

TABLE 40

EDUCATIONAL INFLUENCE OF REFERENCE CATEGORY BY FATHER'S OCCUPATION[a]

Reference Category[c]	Duncan Index of Father's Occupation[b]				
	31-70	71-95	χ^2_y	P	n[d]
Self	66.7	33.3	1.06	.50	18
Parents.	45.6	54.4	2.38	.25	79
Mother	80.0	20.0	3.89	.05	15

[a]Percents

[b]Higher scores represent higher prestige jobs.

[c]These categories are compared with the remainder of all those who admitted or denied influence upon their post high school formal educational plans. The total number answering this question was 164.

[d]n = number of respondents in reference category.

These three reference categories are presented here because they show a tendency for social interaction to be arranged differently in the strata examined. If, as Hollingshead claims,[1] family instability occurs more often among the working class, then we might expect to find somewhat greater reliance by lower strata adolescents upon mothers and themselves as a source of educational guidance than is the case for their upper strata peers.

[1]August B. Hollingshead, "Class Differences in Family Stability," Class, Status, and Power, pp. 284-292.

Looking at how these teenagers saw the social pressures bearing upon their selection of occupation we see an even greater effect of class standing. Table 41 provides a sketch of how the effects of five reference categories were differentially acknowledged by upper and lower strata.

TABLE 41

OCCUPATIONAL INFLUENCE OF REFERENCE CATEGORY BY FATHER'S OCCUPATION[a]

Reference Category[c]	Duncan Index of Father's Occupation[b]				
	31-70	71-95	χ^2_y	P	n[d]
Self.	51.7	48.3	N.S[e]	. .	29
Parents	36.9	63.1	4.11	.05	38
Mother.	100.0	0	9.77	.005	12
Friends at school	69.2	30.8	N.S.	. .	13
Other relatives	90.9	9.1	5.43	.02	11

[a]Percents

[b]Higher scores represent higher prestige jobs.

[c]These categories are compared with the remainder of all those who admitted or denied influence upon their occupational plans. The total number answering this question was 160.

[d]n = number of respondents in the reference category.

[e]N.S. = not significant

The lower strata students gave less credit to their parents as a group and more credit to themselves, their mother, their friends at school, and other relatives as factors contributing to job choice than did the upper strata students. Granting the lack of significance for the self category it would seem that both parents offer less of an

occupational reference group for the teenager, whose parents hold less prestigeful jobs, than exists for the student whose parents have "better" jobs. For the upwardly mobile individual this orientation may facilitate that mobility.

In this study status is strongly related to type of reference groups, the number of jobs considered, and plans to continue formal education. As in a number of other studies we also found a tendency for those in the upper and the lower strata to more frequently plan to take jobs in their respective strata.[1]

The above results generally support the view that those in the lower strata tend not to plan on entering jobs that are considered as prestigeful as do those in the higher strata. It does not answer the questions of: (1) Whether most of those in the lower strata aspire to or want jobs at the same prestige level as the upper strata? or, (2) What differences exist in intensity of commitment for the jobs considered by those in the lower strata versus those in the upper strata?

While we have no data to answer question one, the rank order indices between sentiment and job choices provides a tentative answer to question two. The two dichotomized variables are cross tabulated for job choice as related to sentiment toward job, job and means, and job, means, and reference group for the subsample of all who chose four jobs. Tables 42,43, and 44 present the results.

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[1] F.G. Caro, "Social Class and Attitudes of Youth Relevant for the Realization of Adult Goals," pp. 492-493; C.T. Pihlblad and F.G. Caro, "Aspirations and Expectations," pp. 465-475; H. Rodman, "The Lower Class Value Stretch," pp. 205-215; B. Sherlock and A. Cohen, "The Strategy of Occupational Choice," pp. 303-313.

TABLE 42

S SCORE FOR SENTIMENT TOWARD JOB AS RELATED TO INTENT TO ACQUIRE JOB BY FATHER'S OCCUPATION[a]

S Score	Father's Occupation	
	Upper Status[b]	Lower Status[c]
-6 to +4	58.1	58.3
+6	41.9	41.7
Total	100.0	100.0
n	43	36

[a]Percents

[b]Upper status includes NORC ratings of 71 to 95.

[c]Lower status includes NORC ratings of 41 to 70.

[d]χ^2_y = .044; d.f. = 1; N.S.

All three tables show no significant difference between how the upper and lower strata relate their stated feelings to their intended actions. If these findings are valid and reliable and could be extended to a larger population, then it would seem that the lower strata put together relevant sentiments in about the same manner as do the upper strata in relation to alternates they seek. Two comments are relevant here, first, these alternates are different for the two categories. Each strata grouping tended to choose more jobs at its level. Therefore, these data do not answer the long standing question of whether there is a difference in the cognitive aspirations, as opposed to plans of the two strata.[1]

[1]F.G. Caro, "Social Class and Attitudes of Youth," pp. 492-498.

TABLE 43

S SCORE FOR SENTIMENT TOWARD JOB AND MEANS AS RELATED TO INTENT TO ACQUIRE JOB BY FATHER'S OCCUPATION[a]

S Score	Father's Occupation	
	Upper Status[b]	Lower Status[c]
-6 to +4	53.7	61.8
+6	46.3	38.2
Total	100.0	100.0
n	41	34

[a]Percents

[b]Upper status includes NORC ratings of 71 to 95.

[c]Lower status includes NORC ratings of 41 to 70.

[d]χ^2_y = .223; d.f. = 1; N.S.

Secondly, by themselves, the tests in Tables 42 through 44 do not demonstrate the relative strength of sentiments for the upper versus the lower strata in relation to identical occupational goals. We have no measure of absolute strength of sentiment. However, if we assume that sentiment on one job ranking was the main factor in the second job ranking and that the strength of sentiment is the main factor in the degree of relation between the two rankings, then strength of sentiment is not significantly different for the two strata. This does not mean that upper and lower strata have the same strength of feelings for the same occupations but that they tend to have the same equally strong feelings for the alternates they plan to take.

TABLE 44

S SCORE FOR SENTIMENT TOWARD JOB, MEANS, AND REFERENCE GROUPS AS RELATED TO INTENT TO ACQUIRE BY FATHER'S OCCUPATION[a]

S Score	Father's Occupation	
	Upper Status[b]	Lower Status[c]
-6 to +4	46.3	60.6
+6	53.7	39.4
Total	100.0	100.0
n	48	39

[a]Percents

[b]Upper status includes NORC ratings of 71 to 95.

[c]Lower status includes NORC ratings of 41 to 70.

[d]χ^2_y = .975; d.f. = 1; N.S.

If we can equate sentiment with Hyman Rodman's term "commitment" these results are opposed to his hypothetical view that ". . . the lower class individual with the wider range of values must also have less commitment to each of the values within that range."[1] However, in fairness to Rodman it should be noted that this subsample includes more of the upper part of the lower strata since it contains only those who selected four jobs and those who selected more jobs tended not to be in the lowest strata. It also may be that Rodman is directing his hypothesis at the lower portion of the lower strata.

[1]H. Rodman, "The Lower Class Value Stretch," pp. 205-215.

CHAPTER V

DISCUSSION AND CONCLUSIONS

In the analysis of the data in Chapter IV the results of testing the main hypotheses were presented between an analysis of several social characteristics of the sample and the testing of hypotheses about how beliefs are associated with social structure. This chapter will summarize the results of testing the central hypotheses first and will follow with conclusions about the social structural variables involved.

Central Hypotheses

Direct and indirect approaches were made in the attempt to discover if there were any association between sentiment and choice behavior. In the indirect approach it was hypothesized that those who had admitted more ignorance about the entrance requirements of a college they planned to attend and then had a chance to say they wanted this information would more readily take the opportunity to ask about entrance requirements than those who admitted less ignorance. Since lack of knowledge is generally associated with negative feelings in our society, and a willingness to seek knowledge generally brings approval we believe that this series of questions presented a set of dichotomous choices with accompanying positive and negative sentiments

that would provide an independent test of the main hypotheses. The statistical significance at the .001 level in Table 15 would suggest the hypothesized association between sentiment and behavior as being supported.

If we question whether those who admit to being poorly informed also have negative sentiments, and whether those who say they want more information also have positive sentiments toward taking steps to obtain this information, then a different theoretical interpretation could be made. Further study might better establish if the variables used are accurate indicators of sentiments or some other factors. However, if they are considered valid indicators of sentiments this test is highly significant in showing an association between sentiment and choice behavior and is strong support for the main hypotheses.

In the direct approach to measuring the connection between sentiment and behavior students were first asked for their likes and dislikes toward the jobs only, then the job and means, and finally, the job, means, and what their family and friends thought of them taking these jobs. Respondents were then asked to rank the jobs they had been considering based upon how seriously they intended to try to get into them. Since we hypothesized that sentiments were associated with behavior, or intended behavior, it was predicted that we would find positive sentiment associated with intended job choices. The more our questions stimulated the sentiments that would be present when the serious choice was made the more likely the serious choice would be the same as the sentiment ranking. That this prediction is supported is shown in the increasing percentages starting with 60.8% of the choices falling on the diagonal in Table 13 and increasing to 63.6% in

Table 14 and to 65.7% in Table 17. If we can conclude that those tables that gave the higher percentages indicate a more accurate measurement of sentiment in the choice situation, then it would seem that properly assessed sentiments could be useful indicators of actual behavior.

There is added support for the main hypotheses when we consider only job 1. Job 1 was the occupation students said they would most like to have if they didn't consider anything else. It was not necessarily mentioned first but received the top ranking of jobs they would like to have when all other considerations were supposedly excluded. However, job 1 could be ranked anywhere from first to last based upon such criteria as stated intention to acquire the job, or one's likes for the job, the means to get the job, and reference groups' views of the job. Since there is an increase in the proportion of those selecting job 1 as the one they are planning to obtain corresponding with an increase in our measure of relative positive sentiments toward job 1 we have more support for the hypothesized association between sentiment and behavior. It must be remembered that we are one step removed from the individual taking direct action that would involve a financial or other equally strong commitment to go into an occupation. Such a longitudinal study of the connection between sentiment and behavior whose later change carried greater penalities would provide another type of test of these hypotheses. However, the longer the time interval between the measurement of sentiment and the behavior pattern considered the greater will be the chance for additional sentiments or a complicating social situation to alter the earlier relationship.

One potential reason for the illustrated direct association between sentiment toward a job and the statement of serious intent to acquire that job could be a respondent's desire to remain consistent in his ranking throughout the questionnaire. Several built in reasons why we think this should not have occurred extensively were given in Chapters II and III. Other evidence from the results that would suggest there was no general tendency of a desire for consistency is that a larger proportion of respondents showing a correlation between sentiment toward the alternative and plans to take the alternative as the situation becomes more complex. This meant that after they had ranked four jobs on sentiment toward only the job and after they had ranked the jobs on seriousness of intent to acquire them some of the respondents gave a different ranking to their feelings about the jobs, means, and reference groups' evaluations of the jobs. Whatever the source of the change in ranking it would not appear to be a desire for consistency. A desire for consistency would also have been more difficult to carry out at this point since the complicated ranking was also a paired comparison. Secondly, even though some of the sampled respondents may have wanted to present a consistent ranking others expressly recognized the various conflicting factors impinging upon their decisions. One student wanted help in making the choice between a job he very much wanted but which required six to eight years preparation as compared with a less desired job having a shorter preparation period. Several other examples are given in Chapter III to illustrate an awareness by respondents of the cross pressures involved in these decisions.

Along a similar vein there are those six to nine percent who named as the job they most seriously intended to try to obtain one other than those considered throughout most of the questionnaire. It is true that these may not be representative of the entire sample or that they were consistent for part of the questionnaire. Yet it indicates an expressed willingness on the part of about one-tenth of the sample to recognize how their choices or rankings might be altered under a different set of circumstances or when they were considering different elements in selecting an occupation. A third type of evidence indicating that the respondents did not find it necessary to have consistent rankings of the occupations comes from the variation in the rankings themselves. The relationships between the respondents intent to acquire occupations and other rankings of these same occupations as figured in Kendall tau scores range from .27 to .70. While this does not show a lack of desire to be consistent it indicates a tendency for those who picked four potential job possibilities to rank them in quite different ways depending upon the criteria they used.

While a more conclusive judgment always rests with additional research both the indirect and direct tests of the central hypotheses give evidence of a strong association between sentiment and behavior. This would suggest that those studies that have found little relationship between sentiment or a similar concept and behavior may have problems first in measuring sentiments rather than beliefs and secondly, in considering the numerous ways in which sentiments might be combined between the time the measurement of sentiment is taken and the time when decisive action is taken. There is also the additional difficulty in considering all of those sources of sentiment attachment.

However, the intended contribution of this study has not been to simplify the complexity of human behavior. It was planned to gather evidence to show an association between two major variables involved in voluntary social behavior. If this has been partially accomplished, then the next step in a research strategy would seem to be to try to determine whether this association between sentiment and behavior is established before or after the decisions are made. Only if the associations were found to occur prior to observable behavioral actions would the variable of sentiment appear to have predictive value.

Should sentiment become established as a predictor of behavior there are numerous research areas that might be investigated. They, in part, grow out of our previous theoretical framework. We assumed that sentiment could be attached to practically any phenomena. It was also axiomatic that sentiments were of varying strengths and either positive or negative. Presumably various combinations of sentiments toward a particular occupation could be stimulated under different social situations. Some individuals may also be unaware of the social system they will later encounter. Discovering how these are combined and altered as people encounter various occupationally related events in their lives might better establish the theoretical and empirical base of a theory of occupational selection.

Our theoretical approach to choice behavior also predicted a constant relationship between sentiment and decision-making that was independent of such variables as social status or sex. Our results support this prediction. If these measuring instruments are judged accurate, then the constancy of the connection between sentiment and behavior as sex and social status are controlled would give some

justification for research aimed at finding if the relationship also holds when other variables are controlled.

Even though social status as measured by father's occupation did not influence the connection between sentiment and job selection we found a generally consistent relationship between father's occupational status and the prestige status of the occupations selected. The concluding section will consider how different social status may provide different alternatives without altering the way occupational selection is carried out.

Beliefs, Sentiments, and Social Status

The results of this study strongly support previous studies which found that those children of fathers in higher socio-economic positions tend to consider occupations of higher prestige ratings than do the children of fathers in lower socio-economic positions. Such a tendency would suggest that children obtain many of their beliefs and sentiments about occupations from those in the same strata as their parents. Our results suggest that those in the lower strata put together sentiments toward the jobs, means, and other peoples' views of the jobs in about the same say as do those in the upper strata. If, as Caro's[1] findings might suggest, the working strata student has fewer positive feelings toward the high prestige jobs and fewer negative feelings toward the medium prestige jobs, then we would expect him to attempt to obtain the lesser prestige job more often than the middle strata student. If we add Caro's findings that working class students rate

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[1] F.G. Caro, "Social Class and Attitudes of Youth," pp. 494-496.

college lower as a post high school activity and are less confident it will bring them a high prestige occupation than middle class students, then we have a potential combination of sentiments that could bring selection of a lower prestige job.

This explanation of the association between social status and occupational selection does not require, as Rodman suggests,[1] that there be a low degree of commitment to all of the occupations considered. Such a low degree of commitment could occur but a balance of strong positive and negative sentiments could also produce the same results. Just what is the strength of sentiment for each of these variables and the source of these beliefs and sentiments will not be easy to determine.

The student's interaction with his parents, peers, relatives, and others or any combination of these within his social world could result in the set of beliefs and sentiments that are related to occupational choice. In this study the most obvious variable that suggests a possible partial explanation for the social class differentials in obtaining higher prestige occupations is the potential subcultural difference. Two of the four jobs selected had prestige scores that were significantly related to the prestige scores of the father's occupation and the relationship was in the same direction for the other two. A father's occupation that held high prestige may, at least, suggest other alternatives that are of similar prestige while the reverse may be true for those with lower prestige jobs.

Where the father held a lower prestige occupation we found a significantly larger number of students attributing the major influence upon both their education and occupational choices to their mother. This

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[1] H. Rodman, "The Lower Class Value Stretch," pp. 205-215.

does not indicate that mothers directed their children to lower status jobs but it may indicate that they were more often the guide when fathers were in lower status positions than when fathers held higher prestige jobs.

For the majority of the sample it appears that students of lower strata fathers more often gave credit to non-family members as influential in their occupational selection than those of higher strata fathers. Since the higher strata students also selected a significantly larger number of jobs that they were considering they do not generally seem to be more restricted by this acknowledged parental influence. In summary, it would seem that the results of this study point to the parents as the most influential reference category for occupational selection even though there is a substantial minority that would deny any influence. Whatever the source of beliefs and sentiments or the social position or sex of the individual our results suggest that sentiment is associated with intended or actual behavior in essentially the same way.

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APPENDICES

APPENDIX A

Hypothesis 1

If Jones has a +3 and a -1 sentiment toward alternative A and a +2 and a -1 sentiment toward alternative B, then the major hypothesis together with previously stated assumptions predicts Jones will select alternative A, irrespective of the belief content of alternative B since the algebraic sum of +3 and -1 is +2 while the algebraic sum of +2 and -1 is +1.

Hypothesis 2

Smith considers alternative D and C to be made up respectively of goal d_1, means d_2, and goal c_1, and means c_2. If we assume that he has a +4 and a -2 sentiment towards goal d_1, a +3 and a -2 sentiment toward means d_2, a +3 and a -2 sentiment towards goal c_1, a +2 and a -2 sentiment toward means c_2, then we predict Smith will select alternative D since the algebraic sum of +4, -2, +3, and -2 is +3 and the algebraic sum of +3, -2, +2, and -2 is +1.

Hypothesis 3

Assume Brown has the following sentiment attachments to alternatives E and F. For the goal, means, and reference group evaluation of E, he has respectively a +3 and a -1, a +2 and a -1, and a +1 and a -1. For the goal, means, and reference group evaluation of F, he has a +4 and a -1, a +1 and a -3, and a +2 and a -1 respectively. The prediction is that Brown will select alternative E since the algebraic sum of sentiment attachment for E is (+3) + (-1) + (+2) + (-1) + (+1) + (-1) which is +3, and the algebraic sum of sentiment attachment for F is (+4) + (-1) + (+1) + (-3) + (+2) + (-1) which is +2.

APPENDIX B

Study of Occupational Choice

On the following pages are some questions which are part of a study to find out what are some of the things that high school students face in their selection of a job, occupation, or career after they finish their schooling.

This is a chance to bring together your thoughts about your future. Please answer every question that is related to you since only if you complete all the items to the best of your knowledge can you bring in all the things which affect your plans and make this survey an accurate study.

Only the research staff will see your answers. No teacher, other student or parent will see the questionnaire which you fill out. This is not an intelligence test. We only want what you think and feel. Your answers are important both to the study and to you.

In order to save time we have arranged many of the questions so you can answer by making a check mark. Please feel free to make any additional comments that you care to. All will be treated completely confidential so as not to identify any individual.

Thank you for your help.

Malcolm McReynolds

Department of Sociology and Anthropology
Michigan State University
East Lansing, Michigan

1. Name Birth date

2. What is the highest grade that you have completed in school?
   1. Senior
   2. Junior
   3. Sophomore
   4. Freshman
   5. Other_____

3. Sex
   1. Male 2. Female

4. In regard to high school do you intend to:
   1. complete high school.
   2. leave as soon as possible.
   3. other. What other?_____

5. In regard to your plans for the next five years have you:
   1. thought a lot about them.
   2. thought some about them.
   3. thought very little about them.
   4. thought not at all about them.

6. What jobs, occupations, or careers have you thought about going into after your schooling is over?
   1.
   2.
   3.
   4.

7. If you did not have to consider anything else which of these jobs, occupations or careers do you feel you would like to be doing the most and which the least? Give the rating of 1 to the one you like the best and rate the others below it in order of preference.
   1.
   2.
   3.
   4.

8. What do you think that you must have or do before you can get a job or do what you listed #1 in question 7?
   1.
   2.
   3.
   4.
   5.

9. What do you think that you must have or do before you can get a job or do what you listed #2 in question 7?
   1.
   2.
   3.
   4.
   5.

10. What do you think that you must have or do before you can get job or do what you listed #3 in question 7?
    1.
    2.
    3.
    4.
    5.

11. What do you think that you must have or do before you can get job or do what you listed #4 in question 7?
    1.
    2.
    3.
    4.
    5.

12. Compare the following pairs of jobs and what you think you must do to get each of them. Place a check beside the one you like the best in each pair. Use the jobs that you rated in question 7. As an example suppose that you are comparing the two possibilities of:
    (1) truck driver when you think that you will have to pass a driver's test and look for some company to hire you with
    (2) surgeon when you think that you will have to go to college, go to medical school, and to serve a year or more internship.

You may like the idea of the position of surgeon better than that of a truck driver but you may also like what you must do to be a truck driver better than what you must do to become a surgeon. Therefore, when you compare your likes and dislikes about the above two possibilities you may say that you would prefer or like the position of truck driver over that of a surgeon.

If you first write in the jobs that you gave in question 7 it will be easier for you to compare them.

Check the one you like in each pair	Name of job	
_____	job 3_____	AND what you must do to get it.
_____	job 2_____	AND what you must do to get it.
_____	job 4_____	AND what you must do to get it.
_____	job 1_____	AND what you must do to get it.
_____	job 2_____	AND what you must do to get it.
_____	job 4_____	AND what you must do to get it.
_____	job 2_____	AND what you must do to get it.
_____	job 1_____	AND what you must do to get it.
_____	job 3_____	AND what you must do to get it.
_____	job 1_____	AND what you must do to get it.

_____job 3 _____AND what you must do to get it.
_____job 4 _____AND what you must do to get it.

13. Do you think that the job or career that you selected as first in question 7 requires you to continue your schooling after high school?
1. Yes 2. No 3. Don't know

14. Do you plan to continue your education after you are out of high school?
1. Yes (If yes go to question 15)
2. No (If no go to question 37)
3. Don't know (If don't know go to question 15)

15. Which schools have you though about attending after high school?

Name of trade school, college, or university	Location of school
1.	
2.	
3.	
4. None (If none go to question 37)	

16. If you did not have to consider anything else how would you rank these schools according to how well you would like to attend them?
I would like to attend_____the best.
I would like to attend_____next best.
I would like to attend_____the least.

17. What do you think that a person must have or do before he can be accepted by each of the schools that you have listed above?
A. School _____
1.
2.
3.

B. School _____
1.
2.
3.

C. School _____
1.
2.
3.

18. Now, considering both how you feel about the schools that you have thought about going to and how you feel about what it takes to get into each of these schools, rate these possibilities.
I like_____AND what I would have to do to attend the best.
I like_____AND what I would have to do to attend next best.
I like_____AND what I would have to do to attend the least.

19. Again, rank these schools placing the one that you most seriously plan to attend on the first line, the one you next most seriously plan to attend on the second line, and so on.
I most seriously plan to attend _____
I next most seriously plan to attend_____
I least seriously plan to attend_____

19a. How would your parents rank these schools?
My parents would rate_____first.
My parents would rate_____second.
My parents would rate_____third.

Which of the following do you think are the general conditions that effect your getting into the school that you have chosen in question 19 or, if you are not sure of a particular school, pick one of the schools that you have thought about attending.

Name of school_____

20. The school that I have chosen selects 75% of its freshman class from those high school seniors whose grades rated in the
1. upper 10% of their class
2. upper 25% of their class
3. upper 33% of their class
4. upper 50% of their class
5. upper 75% of their class
6. upper 100% of their class (If you think they accept <u>all</u> high school graduates chose this one.)
7. don't know

21. Do you think that you are in the group that you selected in question 20?
1. Yes 2. No 3. Don't know

22. Is graduation from high school required for entrance?
1. Yes 2. No 3. Don't know

23. Are special high school preparatory courses required in your program?
1. Yes (If yes go to question 24)
2. No (If no go to question 25)
3. Don't know (If don't know go to question 25)

24. Do you have these credits?
1. Yes 2. No 3. Don't know

25. Is a recommendation from your principal or counselor helpful in getting you admitted?
1. Yes 2. No 3. Don't know

26. Have you had such a recommendation?
1. Yes 2. No 3. Don't know

27. What is the approximate yearly cost of attending the school of your choice?

1. more than $2,500
2. $2,000 to 2,500
3. 1,500 to 2,000
4. 1,000 to 1,500
5. $500 to 1,000
6. 250 to 500
7. Less than $250
8. Don't know

28. Do you think that you can meet this financial requirement?

1. Yes
2. No
3. Don't know

29. Will you live at home while attending school?

1. Yes
2. No
3. Don't know

30. Are there scholarships, loans, or part time jobs available to help meet your financial requirements?

1. Yes
2. No
3. Don't know

31. What is the field or course of study that you plan to enter?

1. _____
2. Don't know

32. If a student does not have all the qualifications as you listed them above is it possible to be admitted to the school you chose by passing a special entrance examination?

1. Yes
2. No
3. Don't know

33. How well do you feel that you are informed about the entrance requirements of the school that you have selected?

1. very well informed
2. well informed
3. informed
4. not well informed
5. very poorly informed

34. Check those of the following that you would like more information about _____ school.

1. What upper part of high school classes does the school that I have selected get 75% of its freshman class?
2. Is high school graduation required?
3. Are special high school preparatory courses required for my program of_____ ?
4. Is a recommendation from my principal or counselor helpful?
5. The approximate yearly cost of attending?
6. Are scholarships, loans, or part time jobs available?
7. Other?_____

35. Have you been accepted by a college, university, or trade school?

1. Yes (If yes go to question 36)
2. No (If no go to question 37)

36. Which college, university, or trade school?

Name of school Location

37. Would you go on to school after high school if you could obtain the money to do so?
    1. Yes (If yes go to question 38)
    2. No (If no go to question 39)
    3. Don't know (If don't know go to question 38)

38. Place a check in those spaces that indicate your interest in information about scholarships, loans, or the availability of part time jobs at some school.

    School you are interested in_____

I am very interested	Slightly interested	Not interested	in
_____	_____	_____	Scholarships
_____	_____	_____	Loans
_____	_____	_____	Part time jobs

39. Rate the jobs and occupations you listed in question 7 based on how seriously you intend to try to get each of them after you finish your schooling. Put the job or occupation you most seriously intend to try to get (first), the job or occupation you next most seriously intend to try to get (second), and so on.
    1.
    2.
    3.
    4.

40. Is there some other job or occupation (not listed in question 39) that you more seriously intend to try to get after you finish your schooling?
    1. Yes (If yes go to question 41)
    2. No (If no go to question 42)

41. Which job?_____
    What are your reasons for chosing this job over the others?
    1.
    2.
    3.

42. Which of the following groups or persons do you spend the most time with? Place a (1) beside the group or person that you spend the most time with; place a (2) beside the group or person you spend the next most time with; and so on. Please rate all of these that you spend any time with.

other people you have talked to	older brothers or sisters
friends outside of school	your father
your mother	school counselor
friends at school	a member of the clergy
radio, T.V. or reading	(Minister, priest, rabbi)

other -- Please specify which other

43. In general, when you are with the following groups or people which ones would you say that you enjoy being with the most? Place a (1) beside the group or person that you enjoy being with the most; place a (2) beside the group or person that you next most enjoy being with; and so on. Please rate all of those that you spend any time with.

other people you have talked to	radio, T.V. or reading
friends outside of school	older brothers or sisters
your mother	your father
friends at school	school counselor
a member of the clergy (Minister, priest, rabbi)	other -- Please specify which other _____

44. Which of the following groups or people have you enjoyed most your discussions about job possibilities and their requirements? Place a (1) beside the group or person with whom you most enjoyed talking about jobs or occupations; place a (2) beside the person or group with whom you next most enjoyed discussing jobs; and so on. Please rate all of those that you have talked with about the jobs that you might get after you finish your schooling.

other people you have talked to	radio, T.V. or reading
friends outside of school	older brothers or sisters
your mother	your father
friends at school	school counselor
a member of the clergy (Minister, priest, rabbi)	other -- Please specify which other_____

45. Which of the following groups or people gave you the most information about jobs or occupations and their requirements? Place a (1) beside the one who gave you the most information; place a (2) beside the group or person who gave you the next most information; and so on. Please rate all of those that you have talked with about jobs that you might get after you finish your schooling?

other people you have talked to	radio, T.V. or reading
friends outside of school	older brothers or sisters
your mother	your father
friends at school	school counselor
a member of the clergy (Minister, priest, rabbi)	other -- Please specify which other_____

46. We have asked you to compare the jobs you listed in question 7 based on how well you like these jobs and how well you like the job and what you had to do to get it. Now, we would like you to compare these jobs based on how well you like (1) the job (2) what you would have to do to get it, and (3) how you feel your parents', friends', relatives', and other people's views about these jobs. If you first write in the jobs that you gave in question 7, it will be easier to compare them.

Check the one you like in each pair	Name of job			
_____	job 3	_____	AND	training costs AND parents',etc. views
_____	job 2	_____	AND	training costs AND parents',etc. views
_____	job 4	_____	AND	training costs AND parents',etc. views
_____	job 1	_____	AND	training costs AND parents',etc. views
_____	job 2	_____	AND	training costs AND parents',etc. views
_____	job 4	_____	AND	training costs AND parents',etc. views
_____	job 2	_____	AND	training costs AND parents',etc. views
_____	job 1	_____	AND	training costs AND parents',etc. views
_____	job 1	_____	AND	training costs AND parents',etc. views
_____	job 3	_____	AND	training costs AND parents',etc. views
_____	job 3	_____	AND	training costs AND parents',etc. views
_____	job 4	_____	AND	training costs AND parents',etc. views

47. Please rank how you think the groups or people below would rate the jobs you gave in question 7. Write in these jobs at the top and then rate how each group of people or persons would rate these jobs. Place a (1) under the job they would rate first, a (2) under the job they would rate second and so on.

	job	job	job	job	don't know
Other people you have talked to	___	___	___	___	___
Friends outside of school	___	___	___	___	___
Your mother	___	___	___	___	___
Friends at school	___	___	___	___	___
American people in general	___	___	___	___	___
Older brothers or sisters	___	___	___	___	___
School counselor	___	___	___	___	___
Your minister, priest or rabbi	___	___	___	___	___
Other? Please specify _____	___	___	___	___	___

48. Again we would like for you to rank the jobs or occupations that you gave in question 7; but this time place the one that you think you will most likely have <u>after</u> <u>you</u> <u>finish</u> <u>your</u> <u>schooling</u> on the first line; place the one that you think is second most likely on the second line; and so on.

I think that I will <u>most</u> like have the job of_____
I think that I will <u>second</u> most likely have the job of_____
I think that I will <u>third</u> most likely have the job of_____
I think that I will <u>fourth</u> most likely have the job of_____

49. Is there some other job or occupation (not listed in the above question) that you think is more likely that you will have after you finish your schooling?
    1. Yes (If yes go to the next question)
    2. No (If no skip the next question)

50. What job?

    Why do you think that you will have this job?
    1.
    2.
    3.

51. What is your father's occupation? (What does he do? If your father is retired or deceased put down what his occupation was.)

52. If your father is a farmer does he?
    1. own a farm
    2. rent a farm
    3. own and rent a farm
    4. work for a salary or wages

53. What size farm?
    1. 0-20 acres
    2. 21-80 acres
    3. 81-160 acres
    4. 161-320 acres
    5. More than 320 acres

54. What type of farming does he do?
    1. dairy
    2. beef
    3. general
    4. cash crop
    5. other -- Which other type?_____

55. Does your father have a job off the farm?
    1. 9 to 12 months per year
    2. 6 to 8 months per year
    3. 3 to 5 months per year
    4. 1 to 2 months per year
    5. Less than one month per year or not at all

56. Does your mother work outside of the home?
    1. full time 2. part time 3. No

57. If you wanted to go on to school after high school do you think that your parents could afford to send you?
    1. Yes 2. No

58. Which groups or individuals do you think had the most effect on your choice to continue or not continue your schooling beyond high school?

59. Which groups or individuals do you think had the most effect on your present choice of occupation that you plan to go into after you finish your schooling?

60. Do you have any comments to make about this questionnaire?