A SURVEY OF ECONOMIC PRINCIPLES RELEVANT TO FAMILY INCOME USE

by

DOROTHY Z. PRICE

A PROBLEM

Submitted to the College of Home Economics
Michigan State University of Agriculture and
Applied Science in partial fulfillment of
the requirements for the degree of

MASTER OF ARTS

Department of Home Management and
Child Development

1961

THESI

Table of Contents

Introduction

Why does one family save a large share of its income, another spend a higher than average amount for clothing or furniture, and still another a very large sum for education? Two important determinants, of course, are the values and goals held by the different families. These are essential features in the process of decision-making, but are they all that are required? It is felt that the actual method or reaching a final choice takes much more into account. Values and goals form the essential base; this has been assumed by many researchers. Gross and Crandall say:

> Something underlies and directs even simple decisions, even though the decider may be unaware of the nature of these deciding forces. These forces are spoken of as values, goals and standards.[1]

After these are established, we then need still to know more about the members of the family, how they work together, as well as other major and minor peculiarities, which are incorporated in decision-making. All these factors are necessary for the formulation of a general theory of human behavior, of which financial planning is a part.

For many years, social scientists have been attempting to formulate some such theory. Sociologists, psychologists, economists and others have worked toward

---

[1]Irma H. Gross and Elizabeth Crandall, Management for Modern Families (New York: Appleton-Century-Crofts, Inc., 1954), p. 36.

this, but much yet remains to be done. Many concepts must still be defined, relationships between them established and hypotheses formulated and tested prior to beginning the construction of a theory.

This study is an attempt to work toward one such partially-formalized theory, in the area of family financial planning. The field of human behavior is so broad that in order to approach it rationally, it is necessary to limit study to a specific area. Finances appear to be more tangible and perhaps more easily defined and recognized than some other areas of family behavior. For this reason, it appears to be a logical starting point.

Most studies dealing either with family behavior or family use of finances have been empirical surveys. Whereas such studies are essential, it is necessary to pull them together and through use of basic concepts show the pertinent relationships present in them. It is only by so doing that we can arrive at the stage where we can study an individual family and be able to successfully explain and predict their financial behavior. Until such relationships are known, surveys will be unable to be utilized to their fullest advantage, for without any theory we do not even know what we should observe.[2]

[2]Philipp Frank, Philosophy of Science (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1957), p.4.

As a science develops, laws and concepts accumulate with a vague awareness of some connections among them. At a certain point in its development it pays to arrange this material into a theory. Home management, as a distinct discipline, may well profit from such a theory of its own. While it can make use of partial theories formulated in other areas, since it is primarily interested in an over-all or integrated view, it would be preferable that a broader, integrated theory be utilized. Once such a theory is formulated, a researcher will then know what depends on what, and how and why. It will be a guide for searching for new laws and new significant definitions. Only then will be known what has been overlooked and what has been taken for granted.[3]

Since concepts of other theories are necessary in formulating a new theory, it is hypothesized that several areas of social science can provide some concepts which can be integrated, and from them deduced hypotheses which may lead to a theory of family financial behavior. The few theoretical works done in this area, as well as the philosophical background of science, have led to this hypothesis, which in turn forms the basis for the three objectives of this study:

1. Social science encompasses many areas. Those fields which appear most pertinent to family finance will be chosen as sources of possible concepts useable for such a theory.

---

[3]Gustav Bergman, Philosophy of Science (Madison, Wis.: University of Wisconsin Press, 1957), p. 18.

2. There are many arguments about the existence of theories in social science. It is necessary to determine what is the position of theories in this area; how they are formulated and the possibilities of a formulation of a theory of family financial planning.

3. One basic area will be chosen for more intensive study. The concepts which appear to be most relevant to family finance theory will be further examined and clarified.

Review of Literature

As has been mentioned, there has been relatively little theoretical study done in this area. The main emphasis has been on how consumers spend their money. Such data is found in consumer studies done by Ferber[4], Juster[5] and others. Elaborate new studies of this kind are now in process at the Survey Research Center of the University of Michigan.

What theoretical studies have been made center primarily about aggregate consumption and saving, and seldom make any thorough breakdown into different areas of expenditures.

Ruby Turner Morris[6] pointed to a need to differentiate between long-run and short-run consumer theory. The short-run view takes into account a period of time

---

[4] Robert Ferber, A Study of Aggregate Consumption Functions (New York: National Bureau of Economic Research, 1953).

[5] Francis Juster, Consumer Expectations, Plans and Purchases (New York: National Bureau of Economic Research, 1959).

[6] Ruby (Turner) Norris, The Theory of Consumer Demand (New Haven: Yale University Press, 1952).

when no changes in income or established consumption rates occur, while the long-run view is looked upon as being more realistic: people buy as a part of a going process and chose among clusters of goods, instead of single commodities.

What is perhaps the clearest statement of the state of consumer theory in economics is outlined in Cochrane and Bell's Economics of Consumption.[7] No new theory is offered, but the major points of view of consumer decision-making are drawn together. Primary emphasis in this text is devoted to the revival in importance of utility theory.

George Katona has used the interdisciplinary theoretical and empirical approach to the problem of how and why the consumer spends his money as he does. By using psychological and economic tools, he has attempted to show how consumer behavior is not completely rational nor completely impulsive, but yet that some type of planning is present which concerns itself primarily with a few important decisions which change the habitual flow of expenditures.[8]

In his most recent book, The Powerful Consumer,[9] Katona delves further into specific psychological and economic concepts. Here he points out instances where

---

[7]Willard Cochrane and Carolyn Bell, The Economics of Consumption (New York: McGraw Hill Co. Inc., 1956).

[8]George Katona, Psychological Analysis of Economic Behavior (New York: McGraw Hill Co. Inc., 1951).

[9]George Katona, The Powerful Consumer (New York: McGraw Hill Co. Inc., 1960).

seemingly conflicting views from the two fields are actually supplementary. Classical economic theory postulates a single comprehensive motive - the maximization of utilities, while modern psychology postulates that behavior is multimotivated. He integrates these two approaches by assuming that the multitude of forces represents a description rather than a systematization and can ultimately be reduced to one goal.

Economists, though many have displayed a tendency to underplay the theory of consumption , have however contributed several noteworthy studies. Boulding[10] looks at the consumer as a miniature "firm", at the final stage of production. The final product for the consumer is the psychological one - utility, which is therefore the ultimate product of all economic ability. He then goes on to build his theory primarily on the concept of utility. Though he infers the importance of psychology, there is little reference to it in the theory itself.

In his study of consumption and savings,[11] Duesenberry formulated a theory of consumer saving which he considers as a step toward a broader, more inclusive study. He bases it on the assumption that consumer preferences are interdependent and irreversible.

In home economics, most of the attention devoted to

---

[10] Kenneth Boulding, Economic Analysis (New York: Harper and Bros., 1955), p. 681.

[11] James Duesenberry, Income, Saving and the Theory of Consumption (Cambridge: Harvard University Press, 1952).

consumer theory dates back several decades. In 1923, Kyrk,[12] beginning from "nothing" worked on a theory built around the standards of living. This, she wrote, was the most neglected area of consumption. She too noted the importance of a psychological approach, mentioning that the study should necessarily include a query into the "organized motives and impulses which determine human conduct."

Hoyt, too, has based much of her work on the standard of living approach. The central focus of her work is the theory of maximizing satisfactions.[13] This takes into account four elements: increasing the supply of factors (factors are defined as purchasing power, time and energy and choice-making); knowing the alternative use of factors; increasing utility by expanding appreciations, and balancing choices.

With the exception of the contributions of Kyrk and Hoyt, little theoretical work referring to family finance has been done in home economics.

All studies, done in various disciplines, can be grouped in several categories:[14]

1. Consumption function studies
2. Studies of the major components of expenditures
3. Studies of the purchasing process

---

[12] Hazel Kyrk, A Theory of Consumption (New York: Houghton Mifflin Co., 1923).

[13] Elizabeth Hoyt, Consumption in Our Society (New York: McGraw Hill Co. Inc., 1938).

[14] Lincoln Clark (ed.), Consumer Behavior: Research on Consumer Reactions, Vol. III (New York: Harper Bros., 1958).

4. Studies based on the family cycle as an explanatory variable

5. Studies focused on aspiration levels

6. Studies on the importance of conflict and habit

7. Studies of utility and subjective probability

8. Studies of the relation of attitudes to behavior and of events and experiences to attitudes

This survey of literature indicates the sparcity of work which has been done to develop a theory of financial planning of families. However, the partial theories in other related disciplines and the wealth of empirical data available indicate definite possibilities for the beginnings of the formulation of at least a rough theoretical outline.

Procedure

Status of Theories in Social Science

A theory is a general principle or formula propounded for the purpose of explaining phenomena; it is the result of systematic scientific consideration. A hypothesis is any assumption of a fact or connection of facts from which can be deduced an explanation of a fact or connection of facts already known.[15] It is in this sense that the words "theory" and "hypothesis" will be used in this paper.

Since the long-range aim of this study is the eventual formulation of hypotheses which can lead to a constructed theory, it is essential to first understand the fundamental nature of theories, especially in regard to the social sciences.

Ideally, an empirical scientific theory will comprise an explicitly articulated deductive system into which new concepts are to be introduced by means of explicit definition in terms ultimately, of the primitives (the basic elements) of the system.[16] In social science however, it appears that we shall have to rest content with something short of full formalization; but partially formalized theories are definitely possible. These

---

[15] James Baldwin, Dictionary of Philosophy and Psychology (New York: The Macmillan Co., 1925), pp.

[16] Richard Rudner, "On the Structure of Economic Theories," Paper read before a joint meeting of Agricultural Economics - Economics Departments, M.S.U.

theories focus attention on terms or concepts nonindigenous to them, meaning that these terms or concepts are not basic to the discipline being discussed. They serve to indicate that some portion of the results of some other discipline is being presupposed in the theory. Since this study is attempting to make use of work already done in other theories, the use of indigenous terms will be very important.

One problem with what are often called theories in social science is that they are not theories, neither fully nor partially formalized. These are instead idealizations which are simply convenient shorthand techniques for referring to a rather complex set of connected conditions.[17] However, even these idealizations are rich in relevant concepts.

Although theories in social science are not as sophisticated as those in natural science, they nevertheless are relevant in these disciplines also and can be formulated in the same way - by systematic deduction of related sets of lawlike statements.[18]

Choice of Relevant Disciplines

Since we have found that theories of a sort can be formulated for and do exist in social sciences, there is a logical basis for proceeding to work toward a family finance theory.

---

[17] *Ibid.*

[18] Richard Rudner, Notes from Philosophy 403: Philosophy of Social Science.

The first step is to choose the discipline or disciplines which can provide the most relevant concepts. The core of this problem rests with decision-making; therefore, the most promising fields for the beginnings of a new theory are business management, economics, psychology and sociology. In these four areas, many concepts appear to be well-defined.

The area of business management can be eliminated first, since it deals with a different type of group - the corporation instead of the family. Even more important is the fact that it is built largely on psychological and sociological principles. These two basic disciplines will instead be surveyed.

The family, composed of a small group of individuals, can be studied best through use of sociological concepts - study of groups, and psychological concepts - study of individuals. Both of these disciplines are composed of various subdivisions. Social psychology, defined as "the branch of psychology which studies psychological conditions underlying development of social groups and the development of the behavior of the individual, in relation to his social environment, or generally all problems having both an individual and a social aspect,"[19] is the area most likely to contain principles pertinent to family behavior. Relevant concepts here include attitudes, expectations, habits, motives and perception.

[19]James Drever, A Dictionary of Psychology (New York: Penguin Reference Books, 1952), p.

A later study will concentrate further on the principles derived from these concepts. It will be sufficient here to merely state that social-psychological concepts can provide important inroads toward formulating any theory involving the family as its basic unit.

Since the prospective theory is to deal with finances, it is necessary to rely on basic economic terms. Economics therefore, is essential in constructing any financial theory.

The broad scope of this study, then, will concentrate on investigating thoroughly the disciplines of economics and social psychology and then formulating these findings into a set of hypotheses which attempt to explain the reasons families use their incomes as they do. The remainder of this paper will be devoted to a further investigation of the various areas of economics in order to choose the most relevant ones.

Relevant Concepts in Economics

A survey of basic economic texts by Boulding,[20] Samuelson[21] and Marshall[22] led to six areas which appeared to have some relation to family use of income. These include: welfare economics, real income, economic man, risk and uncertainty, utility and the consumption function.

Welfare economics is an entire sub-field of economics, having as its aim the attainment of economic well-being

[20]Boulding, op. cit.

[21]Paul Samuelson, Principles of Economics

[22]Alfred Marshall, Principles of Economics (New York: Macmillan, 1949).

resulting from the receipts of an adequate share of results of production commensurate with time, effort and ingenuity utilized in production.[23]

While it fascinates many, welfare economics does not appear at any time to have wholly engaged the labors of any one economist. Many dabble in it, but the unevenness of its development has resulted in a distressing disconnectedness between its parts. Most work in theoretical welfare economics, as in most economics, uses as its base the whole of society instead of the individual. Most studies have centered about formulating propositions by which alternative economic situations open to society can be ranked on a scale of better or worse.

It is doubtful whether the area of welfare economics can reveal many useful principles partly because of its broad scope and partly because of its already mentioned discontinuity. A study of welfare in economics confining itself to the measurement of quantities of goods and their distribution is seriously limited and often even misleading. The things upon which happiness ultimately depends - friendship, faith, perception of beauty, and so on - are outside its range, and therefore we can never determine whether the achievements of modern day many be exacting a fearful toll in terms of human happiness. Welfare economics deals primarily with indices of satisfaction derived from measurements of material possessions.[24]

---

[23]Byron J. Horton, Julien Ripley and M.B. Schnapper, Dictionary of Modern Economics (Washington: Public Affairs Press, 1948), p. 109.

[24]E.J. Mishan, "A Survey of Welfare Economics," The Economic Journal, LXX (June, 1960).

Because of these lackings in welfare economics, further investigation of it will not be made. In a larger sense however, since the prime aim of welfare economics is to increase well-being, all principles to be used will, in a way, be encompassed by it.

Real income is a troublesome concept to define and can be approached in two ways, which though different, are likewise similar in many aspects. In one view, real income is defined simply as the reduction of monetary units to their real terms by correcting for changes in the price level of goods.[25] From another point of view, real income is seen as a flow of commodities and services available for the satisfaction of human wants and needs over a given period of time. It includes all material goods and services, either produced or purchased.[26] Real income however does not appear to be particularly useful in the study, since it does not pertain directly to how income is used; its importance is centered rather in determining what comprises income and what it is worth.

The term "economic man" has long been one of importance in economics. For many years, most economic theory was based on the fact that man acts rationally. It was largely developed by classical economists and is really an abstract concept of an individual whose actions are solely motivated by economic self-interest or the desire

---

[25]Alvin Hansen, A Guide to Keynes (New York: McGraw Hill Co. Inc., 1953), p. 40.

[26]Gross and Crandall, op. cit., p. 138.

to maximize his economic gain with the least possible effort.[27] According to this, a man makes decisions by balancing costs against satisfactions, attempting to obtain the greatest satisfaction for the least cost.[28]

However, in recent years, this concept has been pushed further and further into the background by economists. In order to act like an economic man, an individual must have complete knowledge of the satisfactions and sacrifices which each of many possible alternatives present. The variables in behavior are so many and the constants so few, that using the principles derived from "economic man" have been abandoned by many economists. However, in abandoning this "theory", they have likewise abandoned much theoretical study in this area, and turned instead to factual data analysis.

Risk and uncertainty are inherent in most decisions and are essential components in the study of choice-making in economics. Risk is defined as any exposure to loss, injury or destruction. It is usually distinguished from uncertainty in that it implies the formation of an expert or statistically arrived at judgment of probability, a possibility which is excluded from the concept of uncertainty.[29]

Although risk and uncertainty principles have most frequently been applied to economics of the firm, it is

---

27Horton, et. al., op. cit., p. 106.

28William Loucks, Comparative Economic Systems (New York: Harper and Bros., 1957), p. 22.

29Horton, et. al., op. cit., p. 290.

quite likely that some of them can be adapted to the economics of the family, since they are inherent in all decisions.

The principle of utility constitutes the core of economic theory of decision-making. The utility school of economics was developed in the nineteenth century by a group of economists who claimed that value is determined by relative marginal utility and that this is a function of the quantity of goods possessed. (Marginal utility, in turn, is the increase of total utility of any quantity of a commodity resulting from a unit increase in the amount available for consumption.) These economists suggested that this quantitative approach to consumption was the only sound basis of theoretical principles.[30]

Whereas the principles of utility and the economic man are largely inter-connected, it appears safe to assume that some of the principles of utility could be combined instead with some more up-to-date principles of human behavior.

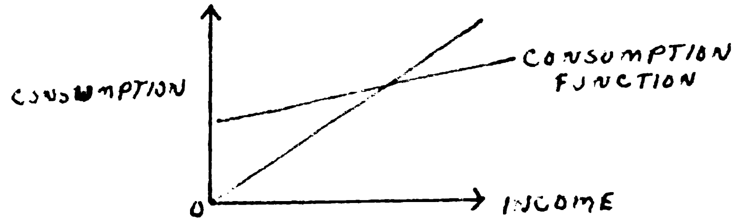
The consumption function is an important element of the "new" economics as developed by J.M. Keynes. It describes the relationship between national income and total consumption at different levels of that income.[31] As the definition implies, the consumption function deals with aggregate economics. It however offers such an excellent framework of economic behavior, that it is quite

[30] Ibid., p. 346.

[31] John M. Keynes, The General Theory of Employment (New York: Harcourt, Brace and Co., 1935), p. 90.

possible that some pinciples derived from it can prove to be equally valuable in the study of individual or family use of income.

Keynes singled out income as being the main determinant of consumption. The slope and position of the



consumption function, in turn, depends on both subjective factors, such as providing for future needs and desiring a sense of independence, and objective factors, such as unexpected windfalls in income and changes in expectations.[32]

Since Keynes takes into account psychological, as well as economic variables, his work offers a promising framework upon which to build a new theory. Even though his work is with the aggregate and the consumption function operates only to determine the part of income to be consumed and the part to be save, instead of the more exact use of income,some of the principles when examined in light of what is known about utility, risk and uncertainty, together with psychological data, can prove to be invaluable.

Risk and Uncertainty

All behavior entails a certain degree of risk and uncertainty. Frequently these two terms are used interchangeably; however, there is a distinct difference between them. Risk is measurable while uncertainty is not. In

---

[32]Hansen, op. cit., p. 69.

risk, the distribution of outcome in a group of instances is known, while in the case of uncertainty this is not true, the reason being, in general, that it is impossible to form a group of instances, because the situation dealt with is in a high degree unique.[33] It is this "true" uncertainty, not risk, which is of importance in the study of financial behavior. The following principles have been formulated largely from the material in Knight's Risk and Uncertainty.[34]

Principle I: Everyone aims towards an ultimate level of equilibrium.

Equilibrium is an indefinite and usually far distant state, for either all of society, a firm or a family. It is viewed as a result of a particular tendancy which may be modified to any extent or reversed by the effect of other tendencies, or the conditions may be entirely changed by unforeseen developments long before any noticeable approach to equilibrium is reached. In order to attempt predicting the course of future events, all of these interacting tendancies must be taken into account, and their relative importance estimated. Even considering this, a wide range of flexibility must be allowed in order to include any unpredictable influence. Because of the inter-relatedness of so many factors, many of which are often unknown or affected by numerous variables, definite predictions extending over a long period appear to be out of the question. However, a short-range view

---

[33] Frank Knight, Risk, Uncertainty and Profit (New York: Houghton Mifflin Co., 1921).

[34] Ibid.

of equilibrium levels may be valuable, especially when analyzed in conjunction with utility theory. Both of these principles are interconnected.

<u>Principle II</u>: Theory of progress and change.

This theory is most frequently applied to society as a whole and takes into account six factors: population numbers and composition; tastes and dispositions of people; amounts and kinds of productive capacities in existence; distribution and ownership of these productive capacities; geographic distribution of people and things, and the state of the arts. Slight changes in most of these factors can enable us to apply this theory, at least in part, to the family and specifically to their use of income.

Population numbers and composition is simply translated into family size and composition. The tastes and dispositions of the family can be analyzed in a manner similar to those of all members of a society. This holds true also for productive capacities present and their distribution among family members. Geographic distribution, though perhaps not as vital and pertiment, can still be considered since the section of the country where one lives has some influence on how income is used, as do rural-urban differences. The state of the arts, while again referring to the whole, has a definite influence on the family. The level and extent of knowledge in various areas has a marked effect on individual members of a family and the family as a unit. These factors can all be considered as conditions of demand, therefore forming some background for family financial use.

Principle III: Uncertainty depends partially on degree of knowledge.

Imperfect knowledge of the future, which is a consequence of change, and not change itself, is crucial to the whole problem of uncertainty. If all changes took place in accordance with invariable and universally known laws, they could be foreseen for an indefinite period in advance of their occurrence and would not upset the perfect apportionment of product values. Many changes do occur with sufficient regularity to be practically predictable - it is these events about which there is much knowledge and uncertainty is absent. In a sense, knowledge is variable in degree and the problem relates to this rather than to its total absence or presence.

In dealing with prediction, two sets of factors must be considered: the things we are dealing with and the circumstances which condition their action. Knowledge of these sets of facts makes it possible to predict expected behavior. Things must first be classified; it must be possible to assume not merely that the same thing will always behave in the same way, but that the same kind of thing will do the same, and that there is in fact a finite, practically manageable number of kinds of things.

We seldom have perfect knowledge of all alternatives to our decisions, and therefore most ordinary decisions are based on crude, superficial estimates. In general the future in relation to which we act depends on the behavior of a large number of objects, and is influenced by so many factors that no real effort is made to take account of them all, much less estimate and summate their separate significances.

The extent of knowledge of the situation then determines the degree of uncertainty present.

Principle IV: Different probability situations result in different consequences.

There are three logically different types of inference included in probability judgment. A priori probability is usually assumed in mathematical or logical treatments of probability. It refers primarily to a homogeneous classification of instances which are identical except for a very small number of real variables. In referring to any single event, a priori probability carries an intuitive certainty.

Statistical probability, on the other hand, depends on empirical classification of instances. Even here though, any high degree of confidence that the proportions found in the past will hold in the future is still based on a priori judgment of indeterminateness.

The probability most involved in the problem of risk and uncertainty however, is the estimate. Estimates can not truly be classified as a type of inference, since inference is an exact science. Such an exact science appears to be out of place when dealing with human behavior, so in effect, both a priori and statistical probability can be eliminated. Estimates are similar to probability judgments, but completely different from the two types already discussed. The distinction is that, in dealing with estimates, there is no valid basis of any kind for classifying instances. The only way of reaching an estimate is through tabulation of instances, therefore reducing it to a kind of statistical probability. The difference between them then is actually only a matter of degree: homogeneous classification of events is seldom possible in statistical probability, and never possible in estimates. The main point to remember about estimates is that the event in question is so unique that there are no others or not a sufficient number to make it possible to tabulate enough like it to form a basis for any inference of value about the real probability of the case in question.

Even though no "real" probability can be reached in estimates, some type of judgment is made in each decision. The degree of certainty felt in the conclusion after it is reached is also important, since what a family does depends on their confidence in an opinion as much as the opinion itself, perhaps more so.

<u>Principle V</u>: Importance of subjective uncertainty.

When someone undergoes a sacrifice for the sake of a future benefit, the expected reward must be larger in order to evoke the sacrifice if it is viewed as contingent than if it is considered certain and that it will have to be larger in at least general proportion to the degree of felt uncertainty in the anticipation. The subjective uncertainty is quite decisive in such a case.

Brief examination of subjective uncertainty readily reveals its relation to that of probability estimates. Nearly all decisions in life are based upon opinions, and the majority of these are actually opinions of probabilities. It is necessary to be able to make estimates of the future demands of one's family in order to determine how best to use present income to maximize satisfactions.

<u>Principle</u> <u>VI</u>: Several individual attributes are related to uncertainty.

Knight, among others, points to several capacities of individuals in regard to uncertainty. These can be classified into five major groups:

1. Men differ in their capacity by perception and inference to form correct judgments as to the future course of events in the environment.

2. Men differ in capacity to judge means and discern and plan the steps and adjustments necessary to meet the anticipated future situation.

3. There is a similar variation in the power to execute the plans and adjustments believed to be requisite and desirable.

4. In addition, there is a diversity in conduct in situations involving uncertainty due to differences in the amount of confidence which individuals feel in their judgments when formed and in their powers of execution.

5. Distinct from confidence felt is the conative

attitude to a situation upon which judgment is passed with a given degree of confidence.

This principle, as well as several others derived from risk and uncertainty, venture into the field of psychology somewhat. Though primarily economic principles, they represent some early attempts to integrate the two disciplines and appear to still retain some valuable guideposts to consumer theory.

Utility Theory

As has been mentioned, utility theory is at the center of most work done in economics in the area of consumer behavior. This has been true for a long time, though in the 1930's, economists who held on to this theory were scorned as being behind the times. In recent years however, utility theory has been making a comeback. Most of its advocates now realize its shortcomings and limitations, but maintain that it should not be abandoned since it is the only theory of consumer behavior available in economics. If utility could somehow be measured, it could indeed be a very valuable concept.

Utility is defined as the ability of a good to satisfy human wants. [35] It is subjective and exists in different degrees in all goods and services for various individuals. The ultimate product of all human activity is utility, since in a sense it is synonymous with satisfaction. Many principles are incorporated in the theory of utility. Five of these have been chosen to be

---

[35]Horton, dt. al., op. cit., p. 346.

further analyzed, for it is these which refer most directly to individual or family economic behavior.

Principle VII: Law of diminishing returns.

The total utility of a thing to anyone increases with every increase in his stock of it, but not as fast as his stock increases. In other words, the additional benefit which a person derives from a given increase of his stock of a thing, diminishes with every increase in the stock that he already has.[36] Psychologically, it implies that the desire for any object will become weaker at the appetite for it becomes satiated.

This can be illustrated as follows: if one eats a candy bar, he gets a certain amount of satisfaction from it. A second candy may give twice as much satisfaction. However, a third one may not increase satisfaction as much as the second; a fourth one increases it even less, and so on.

Boulding[37] states two reasons for this diminishing marginal utility. First of all, commodities are imperfect substitutes, that is to say, there are certain appropriate proportions used in the consuming of commodities. A great change in this proportion tends to throw one off balance and results in declining satisfaction. In the second place, there is a certain satiability of wants. No matter how great a quantity of something is consumed, it will never rise above certain amounts. Every thing has a point

[36] Marshall, op. cit., p. 91.

[37] Boulding, op. cit., p. 684.

of satiety, a point beyond which total utility can not be increased by further consumption.

<u>Principle VIII</u>: Marginal rate of substitution.

The sum of money which will afford the same satisfaction as one unit of the commodity in question is the marginal rate of substitution. If we were able to develop an index for measuring utility, marginal rate of substitution could likewise be measured simply be dividing the marginal utility of the commodity in question by the marginal utility of money.[38] Even though it is not measurable, however, all that is necessary is that the utilities of a quantity of foods and a quantity of money can be compared. All that need be known is whether the utility of one is greater than, equal to, or less than the utility of the other.

Marginal rate of substitution is related also to the market, and to price. Whatever the price of a commodity, a consumer will consume no more or no less than that which is equal to their marginal rate of substitution.

The quantity of consumption and marginal rate of substitution vary with one another. If the marginal utility of money is not constant, as is the case unless the commodity is only a small part of the consumer's total expenditure, we can still construct a relative marginal utility schedule if we know the schedule giving the marginal utility of money for quantity of a commodity consumed.

---

[38] Boulding, <u>op</u>. <u>cit</u>., p. 684.

<u>Principle IX</u>: Equimarginal principle.

In dividing a fixed quantity of anything among a number of different uses, just so much will be apportioned to each use to cause the gain involved by transferring a unit of dividend into one use to be just equal to the loss involved in the uses from which the unit of dividend is withdrawn.[39] This principle deals most closely with the "best" division of expenditures - that which will most greatly increase satisfactions. A person, or family, according to this principle, shall always have a greater drive toward that commodity which holds more psychological gain for him. Unless an ideal apportionment is reached (one by which nothing can be gained by transferring a marginal unit of one resource to another) one will always experience a "need" for that item which holds the greatest marginal utility for him. This principle is, of course, closely connected with the law of diminishing returns.

As do most concepts related to utility theory, the equimarginal principle has several limitations.[40] The first problem is quite obvious: many large commodities are indivisible. A person can buy one or two houses, but not one and one-half; therefore, he will spend either ten or twenty thousand dollars. He may feel that he is spending either too much or too little on a house in relation to his other expenditures. One obvious solution here would be, of course, to purchase a home for about fifteen

---

[39] Boulding, <u>op</u>. <u>cit</u>., p. 688.

[40] <u>Ibid</u>.

thousand dollars - this midway point should then bring one nearer to the goal of maximizing satisfactions. The problem with large commodities is still real, however; for it is comparatively simple to decide to purchase one or two sweaters, but the problem is magnified many times when the item in question is a house or car.

A second limitation concerns the length of the budget period, for something may be purchased in one time period for use in another period. The benefits enjoyed from one purpose must therefore include the satisfaction derived from its use throughout its life span, which in the case of a large purchase, will frequently include more than one period.

This is perhaps one of the most important concepts in utility theory, since its purpose is to show how to dispose of income in the "best" possible way. This is also the ultimate aim of this study.

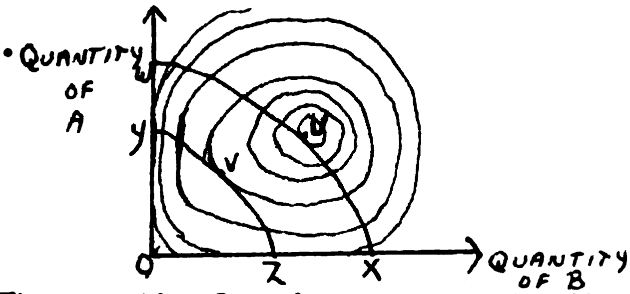
Principle X: Utility an an ordinal magnitude.

Utility is ranked as high or low, needing no specific magnitude to be stated; therefore, it is an ordinal and not a cardinal measurement.[41] This is related to what are known as preference scales and indifference curves. A preference scale involves a theory of optimum choice which puts together two sets of relationships, one describing what there is to choose among and the other enabling us to select out of the possible choices that which stands highest on the scale of preference.

---

[41]Boulding, op. cit., p. 788.

Combinations of two quantities can then be measured on a graph.



The vertical axis represents the quantity of commodity A and the horizontal axis is the quantity of commodity B. The circles or contours are then referred to as indifference curves since they represent combinations of quantities which are neither better nor worse than each other but are indifferent. The curves WUX and YVZ are referred to as possibility curves which divide the area into attainable combinations lying within the area OWVX and OYVZ, and the unattainable combinations outside either of these areas. The points U and V are the optimum positions among all choices available in their respective fields, because these points are where the possibility curves intersect the indifference curves and they are the highest points which can be reached within the attainable areas.

Since it is only the ordinal magnitude of utility which is important, having a field of indifference curves and a possibility area is sufficient for finding an optkmum point of resource use.

Principle XI: Demand curve dhanges.

The demand curve is closely related to utility curves; therefore, changes in demand ultimately affect utility. Four primary causes of changes in demand are change in

taste, change in income, change in saving and change in asset preference.[42]

A change in taste will be reflected by an increased desire for a commodity and therefore an upward shift in total utility.

Change in income operates principally to lower the marginal utility of money. Therefore, even though income change affects demand, it may be only through this change in the marginal utility of money - the utility curves for specific commodities may not change at all.

A change in savings will quite naturally result also in a change of consumption pattern. The increased desire to save results in the falling of utility curves of many commodities, therefore affecting an entirely new plan of income use.

Changes in asset preferences are generally not of long duration, however for short period analysis, they should not be overlooked. A difference in the liquidity preference of a family will also result in a change in the demand for commodities.

The utility theory includes a great number of principles and concepts, most of them dealing with the economics of the firm. The aforementioned five however appear to be most pertinent to the economics of the family.

Consumption Function

The consumption function is a more recent economic tool than either utility or uncertainty. It belongs to the

---

[42]Boulding, op. cit., p. 696.

era of "new" or Keynesian economics. In his General Theory of Employment, Keynes applied the consumption function, marginal efficiency of capital and liquidity preference to aggregate economics. Consequently, most work involving Keynesian concepts has dealt with aggregates. The ideas which he introduced however, appear to offer a challenging framework for individual or family economics as well. His broad insight into the factors determining consumption is especially pertinent. In regard to the consumption function itself, Keynes postulates three primary principles.[43]

Principle XII: Consumption depends primarily upon real income.

Keynes singles out income as the chief determinant of consumption - the level of a family's consumption then depends on the level of its real income. (Real income is here defined as income adjusted for changes in price.)

Consumption is seen as a function, not only of present income, but also of the highest previous income earned. This elaboration was formulated by Dusenberry[44] who maintained that consumption is basically determined by standards already set and can not change drastically if income falls. If income rises however, consumption level is more likely to rise.

The concept helps to determine what total consumption will be at a given income. Since the problem under study is to determine how a further breakdown of income is made,

---

[43]Keynes, op. cit.

[44]Dusenberry, loc. cit.

this idea can only provide a starting point.

Principle XIII: Objective factors influencing consumption are most important in the short-run.

The factors which determine the form of the consumption function are both objective and subjective. (The form refers to the slope and position of the consumption function. The slope has to do with whether or not consumption rises less than in proportion to changes in real income; the position is mathematically calculated.)[45]

Keynes generally took the subjective factors as given, since they were unlikely to change, except over a long period of time. The objective factors then determine the propensity to consume. He lists six factors as being of most importance:

1. Change in the wage-unit - Since consumption is dependent more upon real income than money income, income measured in wage-units becomes important. (A wage-unit is the money-wage of an hour's employment of ordinary labor.)[46] If the wage-unit changes then we can easily see that the rate of expenditure will also change.

2. Change in difference between income and net income - Amount of consumption depends on net income, simply be definition of the term "net income." The consumption function relates different levels of income to the corresponding levels of net income. As long as this remains stable, no change in the function occurs. However, a change in income not reflected in net income will not

---

[45]Hansen, op. cit., p. 71.

[46]Keynes, op. cit., p. 41.

affect the function, which a change in net income not reflected in income will have an effect. (A change in taxes, for example, would change net income.)

3. Windfall changes in capital-values - These are very important since unforeseen changes in money-value of wealth will have a distinct effect on the consumption pattern.

4. Changes in the rate of time-discounting - Time-discounting roughly approximates the rate of interest. This factor allows for future changes in purchasing power of money in so far as these are foreseen. The effect of the interest rate over a short span is open to question. Few will alter a spending pattern simply because of a one or two percent change in the rate of interest. In the long-run however, substantial interest rate changes in the same direction can serve to considerably alter social habits, therefore changing consumption patterns.

5. Changes in fiscal policy - With government assuming such large proportions in our economy, we can not ignore its effects. Decision to tax, to borrow, to spend and so on have a direct and indirect influence on the consumption of every member of the society.

6. Changes in expectations - Here we encounter a factor closely related to uncertainty, and one which is especially important to individual families, even more so than to the aggregate. (In the whole economy, changes in expectation tend to cancel each other out.)

All of these changes, though referring mainly to

the whole of society, can also be analyzed in reference to the family. Further study may add several factors, or perhaps eliminate some, however, the general area of pertinent objective factors is here classified.

Principle XIV: Subjective factors basically underlie and determine the consumption function.

Since Keynes' analysis dealt mainly with short spans, he assumed subjective factors as unchanging. However, he realized their importance in the consumption function. It is primarily these factors which give the function its slope and position, as well as its rather high degree of stability. It is here that Keynes ventures into the psychology of human behavior.

He presents two lists: one of motives which lead to withholding spending, and a corresponding list of motives leading to consumption. The first list includes eight subjective motives - precaution, foresight, calculation, improvement, independence, enterprise, pride and avarice; the secong group includes - enjoyment, shortsightedness, generosity, miscalculation, ostentation and extravagance.

The strength of these motives will, of course, vary a great deal according to the institutions of the society, and the habits formed by race, education, convention, religion and current morale, according to scale and technique of capital equipment, according to present hopes and past experiences, and according to the prevailing distribution of wealth and the established standards of life.

These than are the main thoughts expressed in the consumption function. Alone, they perhaps can not adequately serve to underlie a theory of family financial use. However, in conjunction with utility, uncertainty and some social psychological concepts, they may form a nucleus for such a theory. It is felt that insufficient attention has been paid to the possibility of Keynesian concepts in both individual and family economics.

Conclusions and Recommendations

Conclusions

The hypothesis that several areas of social science can provide concepts pertinent to formulation of further hypotheses concerning family use of income has been substantiated through investigation of several disciplines. Social psychology and economics were chosen as being most relevant and field of economics was further analyzed. Three areas - risk and uncertainty, utility and consumption function - were chosen as most relevant, and from these, fourteen principle were obtained.

These economic principles frequently emphasized their close relationship to social psychological concepts, thus further accentuating the importance of both areas to family income use.

As the review of literature indicated, and the analysis of economic studies further proved, most income use studies are empirical and refer to aggregates. What theoretical work has been done is largely in the area of macro-economics, the gap therefore is in micro-economics. We know little about the whys behind an individual or family spending/saving pattern.

Recommendations

This paper has been just the initial step in a large study aimed toward eventual formulation of a theory of family income use. A brief outline for this study follows.

To deduce hypotheses, it is necessary to have an aquaintance with a broad range of material dealing directly and indirectly with income use. The economic principle analyzed in this paper will be further investigated to determine if several should be combined or eliminated. A similar analysis of social psychological concepts will be made in order to derive relevant principles. Possible areas for investigation include habit-formation, perception, attitudes, motives and expectations.

At this point it appears that the Keynesian concepts may serve as a foundation for the study. Other pertinent concepts will then be injected at suitable junctures. The economic framework will likely remain primary, with social psychological concepts maintaining an important, though secondary, role.

In addition to examining concepts of these two disciplines, principles recognized in home economics (in regard to management, family interaction, and so on) will be taken into account. After all concepts are outlined, several empirical studies will be examined in order to determine the practical significance of these concepts.

At that point, several hypotheses will be formulated which should partially explain why different families have different patterns of income use. This present study will go no further.

Much more work however, will be necessary. Several studies must be undertaken in order to determine the relationships and truth or falsity of the hypotheses. It is only then that a theory can be properly formulated. It is the eventual aim of the writer to determine a method of changing income use patterns of families. Before this can be done, it is necessary to know what determines income use and the process it follows; hence, the need for a workable theory.

Bibliography

Books

1. Baldwin, James. Dictionary of Philosophy and Psychology. New York: The Macmillan Co., 1925.

2. Bergman, Gustav. Philosophy of Science. Madison, Wis.: University of Wisconsin Press, 1957.

3. Boulding, Kenneth. Economic Analysis. New York: Harper and Bros., 1955.

4. Clark, Lincoln (ed.). Consumer Behavior: Research on Consumer Reactions, Vol. III. New York: Harper and Bros., 1958.

5. Cochrane, Willard and Bell, Carolyn. Economics of Consumption. New York: McGraw Hill Co. Inc., 1956.

6. Drever, James. A Dictionary of Psychology. New York: Penguin Reference Books, 1952.

7. Duesenberry, James. Income, Savings, and the Theory of Consumption. Cambridge: Harvard University Press, 1952.

8. Ferber, Robert. A Study of Aggregate Consumption Functions. New York: National Bureau of Economic Research, 1953.

9. Frank, Philipp. Philosophy of Science. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1957.

10. Gross, Irma and Crandall, Elizabeth. Management for Modern Families. New York: Appleton-Century-Crofts, Inc., 1954.

11. Hansen, Alvin. A Guide to Keynes. New York: McGraw-Hill Co. Inc., 1953.

12. Horton, Byron, Ripley, Julien and Schnapper, M.B. Dictionary of Modern Economics. Washington: Public Affairs Press, 1948.

13. Hoyt, Elizabeth. Consumption in Our Society. New York: McGraw-Hill Co. Inc., 1938.

14. Juster, Francis. Consumer Expectations, Plans and and Purchases. New York: National Bureau of Economic Research, 1959.

15. Katona, George. Psychological Analysis of Economic Behavior. New York: McGraw-Hill Co. Inc., 1951.

16. Katona, George. The Powerful Consumer. New York: McGraw-Hill Co. Inc., 1960.

17. Keynes, John. The General Theory of Employment. New York: Harcourt, Brace and Co., 1935.

18. Knight, Frank. Risk, Uncertainty and Profit. New York: Houghton Mifflin Co., 1921.

19. Kyrk, Hazel. A Theory of Consumption. New York: Houghton Mifflin Co., 1923.

20. Loucks, William. Comparative Economic Systems. New York: Harper and Bros., 1957.

21. Marshall, Alfred. Principles of Economics. New York: Macmillan Co., 1949.

22. Norris, Ruby. The Theory of Consumer Demand. New Haven: Yale University Press, 1952.

23. Samuelson, Paul. Economics. New York: McGraw-Hill Co. Inc., 1951.

Periodicals

24. Mishan, E.J. "A Survey of Welfare Economics," The Economic Journal, LXX (June, 1960).

Miscellaneous

25. Rudner, Richard. "On the Structure of Economic Theories," Paper read before a joint meeting of Agriculutral Economics - Economics Departments, M.S.U.

26. Rudner, Richard. Notes from Philosophy 403: Philosophy of Social Science.