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THE CONTRIBUTION OF BASIC NEED THEORY TO
HOUSEHOLD DECISION MAKING

by

Dorothy Z. Price and David W. Price *

Abstract

Utility is viewed as consisting of five basic needs: physiological, security, love and belongingness, self esteem and self actualization. Empirical applications are given in the areas of food consumption, food stamp participation and job satisfaction. Potential value for integrating these psychological and economic constructs is discussed.

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For a number of years economists have largely ignored developments in psychology. Yet as Simon points out in his Nobel Prize lecture Alfred Marshall proclaimed economics to be a psychological science.

"Political Economy or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well being.

"Thus it is on the one side a study of wealth; and on the other, and more important side, a part of the study of man. For man's character has been moulded by his every-day work, and the material resources which he thereby pursues, more than by any other influence unless it be that of his religious ideals."

Simon points out that in actual development, economics has focused on only one aspect of man's character: his reason, and particularly on the application of that reason to problems of allocation in the face of scarcity.

Economic theory basically states that decisions are made so as to maximize the utility of the decision maker. The question of what is included in utility is somewhat nebulous. It is postulated that *ceteris paribus* more wealth leads to higher levels of utility. Models are then constructed to maximize wealth, while other aspects of utility are largely ignored. The fallacy of these models is evident, yet little is done about them.

Katona succinctly points to the problem in his book A New Economic Era: "Economic growth does not lead automatically to fulfillment of people's expectations. Conversely, it would be misleading to attribute responsibility for present malaise to slow growth alone. Many people are dissatisfied and insecure not because they have or earn less but rather because they do not understand environment, because they see things happen that they do not approve of and because they feel they have lost control over their own fate. A striving for quality as well as (or rather than) quantity is evident in economic behavior of most people."

The role of altruistic motives in household decision making is another area not well explained by utility theory. We readily give to charities. We allocate household financial resources so that our children have as good a level of living as we do. The rather vague term "donor utility" is usually invoked to explain such behavior.

The typical model of food consumption behavior includes such variables as income, household size, region, education, and occupation. Psychological variables are labeled "tastes" which are relegated to the error term. Taste variables are then assured to be uncorrelated with any of the explanatory variables in the model so that unbiased estimates of the coefficients are obtained.

This paper will explore basic need theory and its role in decision making. Empirical examples of its use in explaining food consumption behavior will be given.

Basic Need Theory and Decision Making

Basically, behavior is determined by a combination of intervening variables and is motivated by needs and values. A change in an intervening

variable (income or any other primary or secondary environmental variable) will result in disequilibrium or tension in a decision making unit. This triggers decision motivation--needs and values. In this situation a decision may be made.

A decision is made in circumstances where the predominant need is very important to the decision maker and where value systems of high commitment are operational. If these circumstances are not present, a decision may not be made. One may ignore the situation, rely on someone else to make the decision, postpone the decision or act on impulse or basis of routine. Needs and values are basic sociopsychological concepts which, when considered, provide additional insight into economic behavior. Some work has been done to apply these concepts to economic decisions, but it has been somewhat limited, as compared to the emphasis on more limited psychological areas, such as information processing. As Simon has indicated, these studies generally have concentrated on specific case studies dealing with a limited decision making scope and largely ignoring the broader, more complex and potentially more valuable psychological concepts.

Basic Need Theory

The theory of basic need levels potentially can add a significant dimension to the understanding of economic behavior. Many psychologists believe that behavior is motivated by a progressive set of needs. The specific need, which is predominate at any one time, serves as the primary motivation for any behavior at that time. All needs exist in most people, but the intensity levels vary among families.

One list of basic needs which presents a relatively simplified, but commonly referred to approach is based on the motivational theory refined

by Abraham Maslow. This approach indicates the existence of five basic needs, ranking from the most basic--physiological--to safety and security, love and belonging, self esteem, and finally to the highest basic need of self actualization or self fulfillment. We will discuss each of these needs.

Physiological needs are rather evident and include basic biological needs for food, drink and so on. These needs are potentially the most potent, but in actuality are least significant to many, but not all, people in our society, since they are often satisfied to a fairly high level. For example, relatively few people may be motivated to seek food primarily because of near absolute starvation. However, if a decrease in real income occurs, this need level could be elevated.

Safety or security relates to the preservation of the "status quo" and is reflected by a great desire for protection, order and structure. A person motivated primarily by this need tends to resist change of any type and desires direction from others. The "law and order" person who sleeps with a pistol under the pillow or the person who demands exact orders, procedures and guidelines for every step of behavior may well be a person motivated mainly by security or safety.

The need for belonging and love moves into an area encompassing a variety of socially oriented needs. This includes such specifics as the desires for an intimate relationship with another person, for acceptance as a member of an organized group and for a familiar environment. Such a person will seek to make only those decisions which will yield approval of others and will be a "good team member" as compared to a person who can and will work well on his or her own initiative.

The need for self esteem moves totally into the area of psychologically oriented needs. It, itself, is a two-part need consisting of respect from

others and, then, self respect. This is based on the premise that respect is first externally based: one receives many indications from other people of respect, admiration and value. Once this level has been achieved, a person then can move to an internally based respect, i.e., "Since others appear to respect me, I obviously must be a worthwhile person, and therefore, I have respect for myself." This type of person tends to be self confident and innovative, within certain limits. Boundaries of conformity and tradition are recognized, but one increasingly moves toward innovative, risk-taking behavior. However, responsibility and prestige are still most highly valued.

The final or top level of basic needs--self actualization--is a unique, highly personalized type of need. How it is satisfied will vary from individual to individual. This is a person who feels free to live according to his or her own dictates. This does not necessarily point to a radical, hedonistic, nonconformist, but rather to a person highly concerned with others and generally quite self confident. The highly creative person, unafraid of change and willing and eager to take risks is likely to be the person motivated by the need for self actualization.

A person must satisfy each lower need to some minimal degree before the next highest need becomes a significant motivator. Many people, due to deprivation at some level, will remain there for life and will be unable to reach any level approaching the realization of their human potential; this, itself, indicates a potential loss in human capital. For example, the person who has lived for many years in a neighborhood beset with crime may never recover. Years later, he may still be afraid to be on the streets, have five locks on the doors, security dogs and guns in the house, even though he now lives in an area where there is virtually no crime. All of

his behavior may show resistance to change of any kind. His need for safety and security, unsatisfied for so long, remains the dominant motivator in his life, even though there is no longer any valid reason that it should be so.

Since all individuals and households purchase certain types of goods and services, it becomes evident that the same need is not the prime motivator in each of these purchases. For example, although purchases of food appear logically to be motivated primarily by a physiological need (hunger), it may just as well be motivated by any other basic need. This prime motivator, then, can have many effects on the amount and mix of foods, the circumstances surrounding the purchase, and the final utilization. According to basic need theory, there is no question that an unfulfilled need will serve as a strong motivator to behavior. If and how action is taken to attempt to satisfy that need and degree of satisfaction achieved depends on a complex of intervening variables, including the relative satisfaction of all need levels, values (as encompassed in general life style or decision approach), opportunity, and, of course, income.

Empirical Results From a Survey of Washington State School Children

A survey of approximately 1,000 Washington state children ages 8-12 years and their families, obtained food consumption data of the children from three 24-hour recalls. Food pattern data and total household food expenditures were obtained from household interviews. Basic need level data was obtained from an interview with the person in charge of food preparation in the household.

The results showed household food expenditures to be positively affected by physiological need (West, Price and Price). This need is also negatively related to income ($r = -.09$).

This finding gives insights into income-consumption relationship. As income increases, physiological needs are generally more satisfied, food becomes less important, and food expenditures decline. Offsetting this affect is the "pure" income-food expenditure relationship which is positive. One could hypothesize a situation where the negative effect of physiological need would dominate and the total affect of an increase in income could be negative.

Food stamp recipients had a higher level of physiological need than did nonrecipients who were eligible for the program (West, Price and Price). This finding helps to explain why certain households choose to participate in the program while others do not. Benefits as measured by degree of satisfaction from food expenditures would be greater for recipients than nonrecipients. Being on food stamps would likely have a negative affect on self esteem and on self actualization need, and thus explain why some households do not participate. An important implication of this is that if real incomes decline for those eligible for food stamps, physiological need levels increase and food stamp participation will increase. Thus, one must be cautious about attributing all the recent increase in food stamp participation to unemployment and elimination of the purchase requirement. Decreases in real income could also be a factor.

The remainder of this section will present findings on the effects of need levels on the consumption of specific food items. Since there is a wide variety of foods it is hypothesized that different foods have different meanings and thus contribute to satisfaction of needs other than those which are physiological. Foods satisfying physiological needs would tend to be basic items satisfying hunger. Foods associated with family and friends would tend to satisfy love needs. Foods that satisfy self actualization

needs are ones that would satisfy the creative needs of the person in charge of food preparation such as gourmet items. Persons with high self actualization needs would also likely serve foods that are known to be good for other members of the household such as fruits and vegetables. For further details of results see Price and Price (1981) and Price, Price and West (1980).

Physiological need was positively related to children's consumption of fats and oils. Since fats and oils are a very basic food, this is relatively consistent with the theory. Physiological need was negatively related to the number of salads and to the number of juices served by the household. These foods may be perceived as not essential to basic existence. They do not satisfy this need.

Love and belonging need was positively related to the child's consumption of mixed dishes. This need was also positively related to the number of fruits, the number of common canned vegetables served by the household, and the serving of fresh berries by the household. The consumption of mixed dishes is consistent with the theory since mixed dishes are frequently served at gatherings of families and friends. These dishes would be associated with such gatherings and thus satisfy love and belonging needs. The consumption of common canned vegetables may be related to or an important ingredient in mixed dishes. The fruit consumption affects are likely related to the serving of more fruits that are favorites of other members of the household.

Self actualization need revealed some of the most unexpected results in that this need is not usually considered to affect food consumption. The child's consumption of both fresh and canned vegetables were positively related to self actualization need. The number of fruit and vegetable items

served by the household was likewise positively related to this need. Additionally, the child's consumption of pastries and desserts was positively related to self actualization need. These findings are consistent with the theory that the mother with a high self actualization need is creative and is concerned for all persons. She serves a large variety of foods and tends to be a "gourmet" type cook. It would be a challenge to her to serve a variety of vegetables prepared in a way as to be acceptable to members of her family. This should lead to increased vegetable consumption of the child.

Security need and self esteem need showed no important significant relationships to food consumption.

Other Applications

Need level theory represents a broad psychological concept which has a relevance to all economic behavior, not only that of food consumption.

Consumption theory is based on the premise of maximizing utility. As economists, we are aware that utility is broader than satisfaction derived from consumption goods. We talk about job satisfaction, on one hand, and the disutility of working, on the other. We tend to assume that work yields negative utility but that some jobs yield greater negative utility than others. We are unable to explain why relatively rich people work long hours. Fulfillment of self esteem and self actualization needs from work offer a ready explanation.

A large proportion of the population believe jobs should not only provide adequate earnings but should also be self satisfying and contribute to self fulfillment. A striving for quality rather than quantity is frequently seen. It is evident that subjective well being, i.e., utility,

is dependent on many things beyond size of income. A number of studies have substantiated this view. A survey of 1,059 young adults in the state of Washington indicated that self esteem and self actualization were the needs for which they sought satisfaction from their jobs. Unfortunately, when asked which needs were most satisfied from their jobs, these two ranked lowest. In other words, job settings tend to place little emphasis on activities that appeal to and satisfy a person's creative capacities, even though most respondents considered these to be very important. Clearly, economic questions of more income, which are related to lower basic needs, were more likely to be satisfied (though not totally and not in all cases), but other needs emerged related to the job, which were often ignored. Within this framework, the undesirable features of assembly line work become especially obvious (West and Price).

Even with examples in only these few areas, it becomes increasingly evident that there exists a need to expand the number of studies integrating economic theory with broad psychological constructs such as basic need theory and value theory. It is only through repeated, intensive empirical studies that useful insights may be gleaned.

As this paper was being completed, a new book from the University of Michigan Survey Research Center was released (Campbell). Many of the ideas mentioned in this paper were stressed with the optimistic note that "we are entering an era of psychological man. Economic Security may no longer be enough to keep people happy, satisfied." Even in this time of economic stress, this still appears to be true.

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