

Fewer claims are now being approved and 226,000 recipients were eliminated from the disability rolls in 1981 and 1982 in an effort to cut down on costs and abuse of the program [12]. This reassessment of eligibility was in response to a 1980 law requiring periodic review of the program.

The criteria for granting benefits are necessarily stringent considering that 2 million claims are filed yearly [14, p. 276]. To demonstrate the difficulty in obtaining certification for benefits, one study found that four-fifths of rejected applicants never returned to "sustained competitive employment" [14, p. 276].

#### Public Employee Disability Programs

Employees who are not part of the Social Security system are usually covered by a federal, state or municipal disability insurance program. Military personnel are also covered under a separate program.

#### Workers' Compensation and Other State Programs

Workers' Compensation programs offer disability protection but only if the illness or injury is job related, which may be difficult to prove. Since the programs vary from state to state, it is difficult to generalize about the degree of support offered to disabled workers.

State vocational rehabilitation agencies serve disabled persons who do not qualify for Social Security benefits, offering counseling and training to help the disabled return to gainful employment. In addition, New York, New Jersey, Hawaii, Rhode Island and California offer state supported disability insurance programs.

#### Group and Individual Insurance

The Health Insurance Association of America defines disability as the

inability to engage in one's occupation for an initial period and inability to engage in any occupation for which reasonably suited by education, training or experience for the remainder of the benefit period [5, p. 6].

This is the definition most commonly accepted in new disability contracts. However, definitions vary considerably among policies and the interpretation of the definition will vary among companies, particularly in the event of mental disability.

Disability income policies are either short term, providing benefits for two years or less, or long term with payments provided for at least five years or until age 65 or death [4, p. 10]. Total benefits from all sources of disability insurance are usually limited to 60-70% of pre-disability income in order to encourage the return to paid employment. Payments may vary depending on whether the disability is partial or total and whether caused by accident or illness. Benefits are seldom paid for partial disability unless preceded by a period of total disability. A few policies include a cost of living adjustment.

Many workers depend on employer sponsored disability income insurance to fill the gaps left by the Social Security system. More employees (60 million) are covered by short term disability insurance (typically 26 weeks) than by long term (benefits of two years or more) coverage (22 million) [4, p. 6]. The emphasis on short term coverage is designed to integrate with the five month waiting period for Social Security benefits.

A 1982 survey conducted by the Health Insurance Association of America examined new group health insurance policies and found that the majority of companies continue to provide only short term coverage; 66 offered only long term protection and 17 offered both. Benefits for 20% of the employees in the sample would last only 13 weeks [5, p. 3].

To fill the gaps in other coverage, individuals may purchase disability income protection from private insurance companies. For example, a worker with 13 weeks of employer sponsored coverage might purchase additional insurance to fill the five month waiting period before becoming eligible for Social Security benefits.

Private policies can also play a crucial role in family financial security by providing income to persons denied benefits under the stringent Social Security guidelines and to supplement the payments available from other sources.

Benefits in group policies are usually integrated with Social Security and other public disability programs with the total level of benefits equal to the maximum of 60% of wages [4, p. 10]. On the other hand, individual policies generally pay a stated dollar amount per month [4, p. 10]. Such policies should be updated regularly to keep pace with inflation and salary increases.

This dollar limitation on coverage necessitates frequent updating of coverage during periods of inflation and salary growth. Because the insurers will not pay more than 60-70% of pre-disability salary, purchasing excessive coverage is a waste of premium dollars.

Recognizing the Social Security Administration's strict definition and interpretation of disability, some policies include a "Social Insurance Substitute" rider which will provide benefits in the event the insured is unable to work but fails to qualify for Social Security benefits [3, p. 126]. Other beneficial riders include "option to purchase," the right to increase coverage in the future, regardless of health status, and a "cost of living" rider to increase benefits with inflation [3, p. 154]. In an effort to reduce costs and rehabilitate the disabled, Social Security initiated a trial back-to-work period, allowing recipients to continue to receive benefits for up to one year while returning to work. Some insurance companies may pay for rehabilitation without including this as a policy provision.

#### Family Resources

The family may serve as a "safety net" to provide a degree of financial security in the event of disability of a wage earner. If a spouse is not working for pay, the employment prospects of the partner should be considered in family disability protection planning. Perhaps the best insurance a worker can have is a spouse who is capable of earning a living. However, an uncertain economy, low pay, and high unemployment among the marginally skilled may reduce this potential. Although homemakers have no salary to replace, the loss of services due to disability would be costly to the family. At this time policies for homemakers are available but expensive and limited in dollar value.

In addition to the stricter Social Security disability criteria, significant population and work trends are affecting the need for disability income protection. Single parent households are the fastest growing family type in America. These wage earners have a greater need for disability protection than two parent households. Unfortunately, many of these single parents are women in low wage, low benefit jobs, who have neither adequate coverage through their employment nor the financial resources to purchase individual coverage.

Another significant population trend is the rising proportion of two earner families. In analyzing their need for disability protection they may appear to be in a better position than one wage earner families since the family could depend on the income of the spouse. However, most families with two wage earners depend on both incomes to make ends meet; thus the loss of income would still be a severe hardship.

#### Summary of Disability Income Sources

Approximately 80 million Americans or 80% of civilian workers have some private or employer disability insurance [4, p. 10]. Short term policies protect 60 million persons while 22 million had long term policies. More than 2 million of the 22 million also had short term coverage [4, p. 11]. To encourage the return to work, public and private benefits are usually coordinated to limit payments to 60-70% of pre-disability income. Although Social Security payments are indexed to inflation, many private policies are not, which can create hardships in the event of a long term disability. Although most personal finance textbooks portray Social Security as the "bedrock" of personal disability income protection [8], the foundation may prove shaky for persons who do not qualify under the strict interpretation of disability.

#### CONSUMER PROBLEMS IN OBTAINING ADEQUATE DISABILITY INSURANCE COVERAGE

Consumers are likely to encounter a number of obstacles when attempting to obtain adequate disability income protection. First and foremost is recognition of the need. Just as many people postpone drawing up a will, unable to face the reality of mortality, few of us like to contemplate the prospect of disability. Once this hurdle is overcome, up loom the problems of determining need and integrating coverage from multiple sources.

#### Recognition of Need

Most workers recognize the need for life insurance, as evidenced by the volume of life insurance in effect, but often overlook the need for adequate disability protection. Just like wills (a reluctance to face mortality) and seat belts (it won't happen to me), facing up to the prospect of disability is unpleasant and easy to put off. However, another major factor in the low level of recognition of need is the marketing practices of the insurance industry. The adage "life insurance is sold, not bought" could be reversed for disability insurance. Having been burned by the experience of the depression when many insurance companies suffered great losses from the overwhelming number of claims precipitated by economic factors, many private insurers have been reluctant to promote individual disability policies.

Aware that they are covered by Social Security and group disability policies through their employment, many workers don't realize how inadequate that coverage may be. Thirteen or 26 weeks of coverage may be all their employer provides and unless they are severely disabled they will not receive Social Security benefits.

## Determining Disability Income Needs

"It is easier to calculate how much disability income insurance you should have than to calculate how much life insurance you need" [7]. College level personal finance texts treat disability income needs in a rather casual manner, devoting two or three pages to the topic as an addendum to a lengthy chapter on life or health insurance [8]. Maintaining that Social Security is the "bedrock" for planning coverage, the few texts that actually devote any space to the topic offer a "simple" 5-7 step procedure that is predicated upon the assumptions that one is eligible for and will be granted Social Security disability payments and that one can readily determine the dollar amount of such payments.

Assessing disability income needs may be easy if one is planning for the eventuality of total and permanent disability, but difficult due to a plethora of hypothetical assumptions if one does not qualify for Social Security. In addition, most disability insurance policies require total disability in order to begin payments [6, p. 8]. There may be significant loss of income to a family as a result of partial disability of a wage earner, a situation in which most previous assumptions regarding protection prove invalid.

The first step in most procedures for determining needs for additional insurance is to estimate potential Social Security benefits. A few textbooks describe a complicated procedure for making this estimate, however all but the most diligent math aficionados would be intimidated by the process. Alternatively, one is directed to a Social Security Administration Office. However, repeated attempts by the author to elicit this information were rebuffed with the reply that they don't give estimates. One must actually file a claim for benefits in order to obtain this information. Although clearly not applicable to all, one can resort to the average or maximum benefits in current use for planning purposes. Maximum monthly benefits in 1983 for a worker were \$709 and \$1047 for a family [10, p. 96]. Benefits cannot exceed 80% of your average current earnings before becoming disabled [11, p. 17]. Average monthly benefits being paid in January 1983 were \$485 for disabled male workers and \$349 for disabled female workers; spouses are eligible for \$129 and children \$128 [13].

If one accepts the idea that the purpose of disability insurance is to cover the loss of income, most step-by-step procedures to calculate the amount of monthly income needed require rather detailed calculations to reduce present income by the amount of income taxes paid (most disability benefits being free from taxes) and work related expenses. Social Security payments and proceeds from a policy paid for by the insured are tax free. A disability income exclusion limits the taxes paid on employer sponsored benefits. However, these procedures often ignore the fact that a disabled person may

incur additional expenses not covered by health insurance such as a wheelchair, special adaptations of living quarters and automobile, or regular home nursing care. Therefore, assuming that expenses will be reduced is not necessarily wise, particularly considering the long term effects of inflation.

For once there may be a simple solution to the dilemma of how much insurance to buy. Virtually all group policies will coordinate benefits and restrict payment to 60-80% of pre-disability wages. Thus, a simple answer may be to purchase the maximum allowable individual coverage; a solution often precluded by family finances.

Like most consumer products and services, one has "to do a fair amount of shopping around" because "premium rates and policy provisions differ considerably" [2, p. 58]. Recent articles in consumer magazines [2, 3, 10] provide a valuable supplement to the cursory coverage of most textbooks by providing specific detailed advice on how to shop for a policy. Since "the protection you get from any plan depends to a large extent on how strictly it defines disability," [2, p. 58] plowing through policy language may be challenging but is absolutely essential. The definition of disability may range from a pure loss of income test to the "inability to perform the main duties of your regular occupation" or the inability to perform any paid employment [2, p. 124]. Length of coverage and waiting periods add additional variables to the equation. The cost and level of protection vary considerably among policies, requiring diligence on the part of the consumer.

The following assessment by the Health Insurance Association of America is much more realistic than that of the personal finance texts.

Today, there exists a bewildering number of disability income protection programs at practically every level of business and government. By its sheer complexity, this makes it difficult for individuals to know all systems under which they may or may not be covered [6, p. 2].

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Disability income insurance is a multifaceted topic involving assumptions which complicate the process of accurately estimating needs, especially if the disabled person does not qualify for Social Security benefits. A variety of definitions of disability and technical policy language complicate the process of evaluating existing coverage and shopping for individual policies.

In addition, it is a topic with a relatively low level of recognition of need among college students and the general population, a subject which is given little attention in personal finance textbooks and often overlooked by educators and researchers.

For most single young adults adequate disability income protection is more essential than life insurance since the chance of being disabled is far greater than the likelihood of death, and the related expenses of a long term disability much greater. Yet college personal finance textbook coverage of disability insurance is inadequate [8]. Educational programs for the general public also appear to be very limited. Although 80 million families have some private or employer disability insurance, only one-fourth of those have long term coverage [4, p. 10], exposing them and their families to severe financial hardships.

#### Recommendations to Educators

Educators need to evaluate their coverage of disability income insurance in the classroom and the public arena. They may serve their audiences better by:

1. placing more emphasis on disability income protection and integrating the topic with coverage of Social Security and health and life insurance,
2. developing more thorough yet simpler procedures for estimating disability income needs,
3. integrating instruction on disability income protection with current data on changing population and work trends and Social Security policies,
4. developing educational programs for high risk occupational groups and single parent families,
5. encouraging better coverage of disability income protection in personal finance textbooks, and
6. identifying and sharing effective educational programs to improve outreach to the general public.

While educators are unlikely to receive requests for programs on disability income protection, perhaps it is time to develop and promote our expertise in this area.

#### Recommendations for Researchers

There is a need for research to determine:

1. the extent of public knowledge and understanding of disability income protection needs,
2. whether American families are under insured,
3. the special needs of homemakers and the impact of disability of the homemaker on the family,

4. the economic status of the disabled population and effective strategies for meeting their financial needs,
5. whether consumer educators need additional training in this topic.

Determining how to best meet needs for disability income protection offers challenges and opportunities for educators and researchers. Relatively little research has been conducted on disability income needs and programs other than Social Security. The potential exists for significant contributions to the formation of public policy, particularly at this time when the Social Security disability program and policies are undergoing review and revision.

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FINANCIAL FUNCTIONS OF FAMILIES AS INFLUENCES ON  
CENTRAL EVENTS IN FAMILY RELATIONSHIPS

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ABSTRACT

Family financial functions have a crucially influential bearing on central events in family life. Yet little research has focused on their integration. This paper conceptualizes the relationship of the two areas by portraying the relationships in the form of a matrix. Example hypotheses are given which can be used by scholars in family and consumer economics to explore economic causes of selected family events.

Consumer and economic problems, indeed the total financial functioning of families, are deeply and inextricably entangled in many aspects of contemporary family life. As scholars in consumer and family economics, we are well aware of this, and often painfully so when we recognize the impact of inflation, unemployment or other economic forces on the declining welfare of consumers and families. Yet scholars in the consumer and family economics discipline have focused attention on decision-making skills and resource management, but without broader consideration of the total family context of financial variables. Nor have scholars from other disciplines developed a holistic understanding of how financial functioning of families integrates with the totality of family life.

With the complex consumer and economic environments of today, and the number of potential influences these exert on family life, there has never been a better time for scholars in consumer-family economics and family relationships to integrate their viewpoints. Our goal is to take a first step toward developing an integrative perspective of how financial functions of families interface with and influence family events.

Our approach to this topic is conceptual and involves the development of three frameworks: First, four principal financial functions of families are outlined. These four functions include required and voluntary consumer and economic activities for which a family unit is responsible.<sup>2</sup> Second, six general categories of central events in family life are identified. While many events have influences on family life, the central events we identify are those which may have the most dramatic and pervasive impact on the structure and function of the family unit.<sup>3</sup> Finally a matrix of hypothesized relations between financial functions

and central events in family life is formed. The matrix offers a unique and holistic perspective of how financial functions interlock throughout all major family relationships.

The importance of this topic to consumer and family economists, and its broad relevance to the consumer field, can be seen from several special vantage points. For example, family financial planners and counselors work with families as well as individuals and must recognize current and future events in the family's life before advising on financial matters [3,19]. Consumer educators need to inform their clientele of the risks as well as rewards to successful family functioning which are inherent in many financial decisions. Consumer behaviorists need a better understanding of how certain acts of consumption link to central events in family life, perhaps more pervasively than other common sociological explanations of consumption such as social class, lifestyle and stages in the life cycle. Family economists, public policymakers and human service professionals are among other groups who design programs to aid families, and who need a fuller understanding of financial factors in family relations. Finally, the academic scholar in consumer and family economics needs conceptual frameworks to guide the formulation of research but such structured conceptualizations are the exception in the field of consumer affairs.<sup>4</sup> In summary, the total consumer field benefits from having organized and structured conceptual frameworks that aid our understanding of consumer and economic phenomena.

FINANCIAL FUNCTIONS OF FAMILIES

Families perform a wide range of economic and financial activities, including those of producer as well as consumer. These functions may be categorized in four general areas: 1) provision of basic consumer needs, 2) achievement of a desired standard of living, 3) career choice and occupational advancement and 4) financial support of children. Table 1 outlines the primary components of these; each is briefly introduced in the next paragraphs.

Provision of Basic Consumer Needs

The first and foremost economic function of the family is to supply its members with basic consumer needs for survival: food, clothing and shelter. There is no well-defined standard for accomplishing this goal, though many guidelines exist. Examples are recommended daily allowances for food intake, specific standards for adequate housing and standard budgets for various categories

<sup>4</sup>See Stampfl's consumer life cycle formulation for another example [28].

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<sup>2</sup>Financial functions of families adapted from literature on basic family functions [1].

<sup>3</sup>Not every family will experience all of these events, and some families may experience events not included. Our presentation is designed to indicate, for example purposes, some of the most important events for consideration.

of consumption proposed by the U.S. Department of Labor [32]. Government poverty programs also specify poverty levels which may indirectly identify minimum standards under which basic necessities are provided. However, poverty is a relative concept with many potential indicators [8,15].

TABLE 1. Financial Functions of Families

General Functions:	Specific Activities:
PROVISION OF BASIC NEEDS	Food Clothing Shelter
ACHIEVEMENT OF DESIRED STANDARD OF LIVING	Symbolic Consumption Leisure
CAREER CHOICE AND OCCUPATIONAL ADVANCEMENT	Job Selection Job Mobility Career Changes Dual Careers
FINANCIAL SUPPORT OF CHILDREN	Education Socialization Personal Growth

Achievements of Desired Standard Living

The American ideal of successful family life is to achieve a standard of living well above provision of basic necessities [6]. It is true that different segments of American society advocate various standards of living, ranging from "voluntary simplicity" and "small is beautiful" to the lifestyle of the "sophisticated suburbanite" and "conspicuous consumption." Much of what was once considered extravagance of luxury in consumption has become symbolic of a standard, for example the two-car family.

Obviously a failure to meet the basic needs of the family is an economic problem with potentially serious consequences. For many families the failure to achieve the American ideal of a certain standard of living, or some individualized goal can have equally serious psychological consequences for the affected members and social consequences for the community of which the family is a part.

Employment and Occupational Advancement

Employment is the central economic activity of one or more family members. It is assumed that one will advance up an occupational ladder, increasing one's income, or do so through successful self-employment. Typically, one will become more successful as he/she passes through the chronological stages of family life. One measure of family successes is dollars earned by the family.

When earnings expectations are not met, serious family problems can develop, both from a financial standpoint and from psychological one [4]. When the primary breadwinner does not advance, all family members may feel failure or assign blame. This feeling of failure can be manifested through many family problems, such as marital dissatisfaction, family violence and divorce.

Career changes may become necessary when the breadwinner loses his/her job or fails to advance. It is

important to choose a career which is personally satisfying and which provides sufficient income. Not only is career choice important, but career change and/or career mobility are often as important if one is to advance.

Financial Support of Children

Child rearing has long been defined as one of the basic functions of the family and often the reason for marriage [25]. Child rearing is both an economic and a social function; however, the bulk of literature focuses on the social functions of child rearing with little attention to the economic functions. Popular literature includes topics on child rearing and often gives tips, which require financial resources, but the mention of actual costs is typically ignored.<sup>5</sup>

Recent USDA research concludes that it costs \$80,000-\$117,000 to raise a child today [31,p. 26]. These costs go beyond the basic needs of food, clothing and shelter, and other studies which include college costs, estimate the costs to be as high as \$270,000 [30, p. 77].

Socialization of children in our contemporary society often requires that children be involved in organized activities such as soccer or swimming. Personal growth and maturation may be enhanced through activities such as music lessons, scouts, or junior achievement. All these child-centered consumer activities place increased stress on family finances.

Several scholars have uniquely incorporated the costs of time with the issue of family planning. Their premise revolves around the value of time and the fact that the value placed upon time has continued to increase, causing a decrease in the number of children a family chooses to have [12,27].

CENTRAL EVENTS IN FAMILY LIFE

As an initial means of conceptualizing central events of family life, we identify six major events: mate selection, family planning, family violence, divorce, remarriage and aging. Table 2 lists the central events and indicates selected specific aspects of each central event. For example, mate selection involves a series of sub-divisions. Selection of the mate's demographics (age, education, social class, occupation, potential income and so on), adjustment to mate's lifestyle, and modifying one's attitudes and values to enhance compatibility with the new mate. We have indicated major sub-aspects of each life event in Table 2; since this is familiar content and the table is self-explanatory, no further elaboration is offered presently.

<sup>5</sup>Examples include Parents, Working Mother and Good Housekeeping.

Table 2. Central Events in Family Life

Major Events:	Specific Aspects of Major Events:
MATE SELECTION	Demographics Personal Values Lifestyle
FAMILY PLANNING	Number of Children Spacing of Children Roles of Children in Family Functioning
FAMILY VIOLENCE	Child Abuse Spouse Abuse
DIVORCE	Who Initiates Divorce Custody of Children Alimony and Child Support Single-Parent Households
REMARRIAGE	Mate Selection Blended or Reconstituted Families Relations with Former Spouses Financial Support From or to Former Spouse
AGING	Changing Physical Body and Mental Capacity Mid-Life Transition/Crisis Empty Nest Retirement and Leisure

THE INTERFACE OF FINANCIAL AND CENTRAL LIFE EVENTS:  
A MATRIX OF HYPOTHESIZED RELATIONSHIPS

The central task of this paper is to integrate financial functions of families with central events of family life. Our approach is to present a matrix of hypothesized relations as an integrative and summary device. The matrix is presented in Figure 1, and contains an example hypothesis for each "financial function-central life event cell." Many hypotheses may be generated for each cell in the matrix, but for simplicity we have limited the number of hypotheses presented to twenty-four.

For the remainder of the paper we will discuss each of the central events of family life, in relation to financial and economic aspects of each event. As this discussion progresses the meaningfulness of the matrix, in terms of presenting a holistic view of the financial and economic dynamics of family life will become more apparent. Background information for specific hypotheses from the Figure 1 matrix are also discussed and relevant literature is cited to give substance to this approach.

Financial Aspects of Mate Selection

The importance of mate selection is addressed in family relationship texts, and is generally approached from the aspect of personal values: religious, educational and cultural [22]. Today little research exists on the economics and finances of mate selection [17]. However, evidence

that mate selection is considered from the aspect of economic functions can be seen from statistics showing that marriage tends to be postponed when economic conditions in the country are depressed [23]. Therefore, a wide range of economic phenomena affecting society as a whole, including inflation, recession, unemployment and personal incomes may become controlling factors in the marital decision and thus the establishment of family life.

Perhaps the most obvious financial aspect of mate selection involves selecting the mate with the greatest potential to provide financial resources, e.g. higher income [21]. Marital partners do seek one another for economic reasons including ability to provide income or perhaps because of home production skills [7,9]. The particular importance of such underlying motivations may be difficult to measure, but one of the more interesting areas for future research.

Financial Aspects of Family Planning

Fertility can be viewed as consumption, and the "purchase" of children is not unlike the purchase of a consumer durable [2]. Historically families had children in part for their economic value, as workers inside or out of the household. Children in contemporary society do not increase the family's economic worth, and the result is seen in the form of smaller families.

Presently young couples are postponing having children while they work on career advancement of either or both partners. Postponement of children is also associated with recessionary times [23]. Thus, financial considerations in planning children are very real. Literature on the economics of fertility presents and tests models designed to show that the decision to have children is an economic one [27].

Financial Aspects of Family Violence

Wife and child abuse, both psychological and physical, are the best documented forms of family violence. Recent evidence shows that wife and child abuse are more apt to occur with low income families [10]. Schellhardt states that "social workers reported an increase in incidents of child and spouse abuse linked to family violence and stressful situations such as unemployment, part-time employment, pregnancy and being a single parent family [11]. All of these problems are economic. In the recession years of 1981-1983 the media have reinforced this fact by regularly reporting numerous family stresses due to unemployment.

Furthermore, less educated, and low income women who are victims of abuse tend to continue in the marriage and become increasingly victimized by their husbands before leaving the marriage [16]. The primary reason for this is that most of the women are not financially able to support themselves; they see no alternative other than welfare.<sup>6</sup>

<sup>6</sup>Case workers at women's crisis centers consistently cite this as the primary reason.



FIGURE 1. The Matrix of Hypothesized Relations Between Financial Functions and Central Events in Family Life

CENTRAL EVENTS (Table 2)		FINANCIAL FUNCTIONS OF FAMILIES (Table 1)		
	Provisions of Basic Needs	Achievement of Desired Standard of Living	Career Choice and Occupational Advancement	Financial Support of Children
<b>Mate Selection</b>	H: Marriage is more likely to be postponed when the couple is unable to provide for the basic needs of the unit.	H: Perceived compatibility of desired standard of living is considered in mate selection.	H: Marriage may be postponed if it interferes with career choices or advancement.	H: Economically conscious partners choose mates desiring smaller than average families.
<b>Family Planning</b>	H: Families postpone child bearing until income is adequate to provide basic needs.	H: Smaller families are purposefully planned in order to raise the family standard of living.	H: Children are spaced so as to accommodate planned career stages.	Total costs of raising children are considered in family planning decisions: how many and when.
<b>Family Violence</b>	H: Increased family violence occurs and is endured when incomes are low.	H: Family violence is more likely to occur when the family "provider" perceives personal failure in reaching desired standard of living.	H: Increased family violence occurs when level of living is less than desired standard of living.	H: Violence is more likely to occur in large rather than small low-income families.
<b>Divorce</b>	H: Low-income families are more likely to divorce.	H: Families achieving the desired standard of living are more likely to remain married.	H: Divorce is more likely to occur in career-oriented rather than family-centered marriages.	H: More children increase chance of divorce in low-income families because of increased economic demands and because opportunity cost of divorce is low.
<b>Remarriage</b>	H: Women are more likely to remarry and men less likely if their income is inadequate.	H: Alimony and child support may diminish the achievement standard of living of the remarried family.	H: Remarriage is less likely to occur for career-oriented women, and more likely for career-oriented men.	H: Succeeding marriages will be more successful if there are fewer children from one or both previous marriages.
<b>Aging</b>	H: Aging low-income families are more likely to face health-threatening consumption deficiencies than other low-income families.	H: Retired families with their desired standard of living are more likely to have private pensions and other assets in addition to federally-sponsored entitlements.	H: Occupational disengagements or retirement is more closely associated with future financial expectations than with chronological age.	H: Older families with "empty nests" are more likely to be financially secure than families with any children in residence.

## Financial Aspects of Divorce

Divorce is obviously a financial matter when one considers that division of property, alimony and child support are central issues. But perhaps even more consequential for family welfare is the fact that divorce frequently occurs in lower income groups, with limited financial resources, resulting in a newly impoverished family unit.

The opportunity cost of divorce is less for those with lower rather than higher incomes, and it follows that divorces are more prevalent for the lower income groups [5,18]. Custody of children is primarily given to women; yet women typically have lower incomes and child support payments are often sporadic at best. Thus, many of the single-parent families headed by women are in poverty or low income categories [7].

When individuals experience an increase in economic problems following a divorce, there is more difficulty in post-divorce adjustment. The reverse is also true; fewer economic problems following divorce are associated with easier post divorce adjustments [24]. This suggests the importance of economics in coping with divorce.

## Financial Aspects of Remarriage

Although divorce is widespread in the United States today, marriage is not being abandoned as remarriage figures are increasing [13]. Second marriages also have many problems. Often cited are psychological and emotional problems concerning stepchildren; yet recent literature states that stepchildren adapt more easily to the new situation than was previously thought [14]. Thus, the problems and successes of a remarriage are related to many factors, including psychological, emotional and economic functioning.

Economics clearly influences the decision to remarry. Women with low incomes tend to remarry soon, but men with low incomes do not [13]. The reason for this is that women feel the need to remarry because they cannot financially support themselves and their custodial children, whereas men have difficulty finding a mate because economically they have little to offer. Evidence exists that remarriage is closely tied to economic functions of a family. In fact, two resources which are considered advantageous in finding a mate for remarriage are personal attractiveness and economic resources [7,13,14].

## Financial Aspects of Aging

Aging is definitely a family problem today where people live to be much older than ever before. Family studies research has focused on many topics related to aging, such as loneliness, inter-generational relations, kin networks, widowhood and grandparenting, but with little focus on economic welfare [29]. Economists have studied pension plans, social security capital investment and tax policy [29]. Retirement, even when forced, appears satisfying for those with higher economic resources. However, those with low incomes find the retirement period a depressing one,

rooted with lots of difficulties--often barely having enough money to buy food and pay for shelter [20]. Thus, economic functioning of a family appears to be a primary factor in dealing with the problem of aging.

## CONCLUSIONS AND IMPLICATIONS FOR PROFESSIONALS

This paper makes the case that consumer, economic and financial issues have a crucially influential bearing on central events in family relationships. These issues are recognized by scholars in consumer-family economics and family relations, but are not treated as the central variables for analysis. Thus one of the more important contributions of this paper is to draw attention to the pervasiveness and all-encompassing power of financial functions of families in modern family life.

We have proposed that the financial and economic aspects of family life be viewed as an integrative unit. The matrix of hypothesized relations between financial functions and central events in family life was created to visualize this holistic phenomenon. Having outlined the dimensions of the matrix in the preceding section, it is now useful to note a number of things the matrix does:

- It is a convenient summary device that illustrates the scope of financial variables in family life at a glance.
- It forms an integrative conceptual framework with testable hypotheses.
- It draws direct attention to the centrality of consumer, financial and economic issues in family life.

The approaches presented here have broad implications for a wide range of professionals jointly interested in financial and family-related problems. For example, counselors, financial planners, human service workers and scholars who study families can develop applications to their activities from the general framework presented. To conclude the paper, some of these applications are briefly described.

An interdisciplinary approach to economic functions and family problems is useful to both family therapists and family financial counselors. Financial counselors help families in debt difficulty. These families need help in becoming solvent, but there may be central family problems which caused the indebtedness in the first place. By being able to identify problems, the financial counselor can make referrals to appropriate professionals or agencies. Similarly the family therapist may find that the family's problem is caused by some economic factor and the solution to the problem might be to help the family financially. In this case a referral to a financial counselor would be appropriate.

Financial planners help families plan the use of their money to achieve their goals. Knowledge of central family issues and economic relationships

can help when stated family goals appear unrealistic or inappropriate for the family's lifestyle. Or, if there appear to be goal conflicts between family members and the problem is financial, the informed planner is far more likely to recognize and help resolve the conflict.

Human service workers, such as those working with battered wives, must be more attuned to the financial conditions and problems families face. An understanding of the relationship of the two could provide insight into finding solutions. For example, many women stay in a marriage until the problem is paramount because of limited financial resources. While the abused woman may need therapy, financial help may be the priority before therapy can be beneficial. Initially case workers may need to help women find employment or offer other kinds of financial assistance.

Scholars can benefit from the integrative approach and conceptual framework in several ways. Interdisciplinary research teams can combine their expertise in identifying research questions, testable hypotheses and in finding answers. In addition to interdisciplinary teams, scholars can add interdisciplinary components to individual research. The economist or family relations scholar can add additional variables to their respective models. For example, money which is sometimes used as a power tool in family decision-making, could serve as a proxy for power and could be added to mathematical economic models. The family scholar could include more economic as well as social or psychological variables into their models. Surveys testing models in both fields would need to include questions designed to measure both economic variables and family problems.

Scholars interested in consumer behavior and consumer affairs can particularly benefit from this conceptualization. Traditionally consumer choice-making has been looked at as a phenomenon of social class, lifestyle, position in the life cycle, personality, and various marketing and public policy factors. It is remarkable how little attention has been given to the direct relation between consumption and central events of family life. Yet it is obvious that consumption is central to such events as the formation of new households, divorce (the reformation of two households), and aging (moving from one's suburban, four bedroom, family-oriented house to an in-town, two bedroom apartment or condominium). To further ignore the consumer and financial implications of central events in family life would be a serious oversight by the consumer field.

This paper was not designed to answer questions, but to provide a framework for examining relationships between financial functions of families and central events in family life. Some implications for usefulness in a variety of related topics have been presented. It is the intent of the authors that studies addressing these issues and their economic relationships be conducted from an interdisciplinary approach.

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# INTERHOUSEHOLD EXCHANGE OF GOODS AND SERVICES: A COMPARISON OF TWO ETHNIC GROUPS<sup>1</sup>

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## ABSTRACT

This study explored differences in interhousehold exchange of goods and services among Anglo and Mexican-American families categorized into high- and low-income levels. The extent of such exchange, its perceived importance to the family's quality of life, the resulting satisfaction, and the relation of persons in the exchanging households to each other were examined. Significant differences were found more often between high-income Anglos and Mexican-Americans than between low-income families in frequency both of a family providing any of the six types of goods and services studied to others or of others providing for the family. Mexican-American families were more likely than Anglo families to exchange with relatives.

In their search for economic well-being and security, families attempt to acquire the goods and services that will meet their needs and wants. A family's economic situation stems largely from its total income, both monetary and in-kind, and from its ability to obtain, allocate, and use that income to meet both present and future goals.

In-kind income consists of goods and services directly given to or performed for households by either private or public sources. It may include goods or services produced at home by family members, exchanged with persons outside the family, or provided at public expense, e.g., the community library, public health clinic, or housing subsidy. Within limits, in-kind income can be substituted for monetary income, thereby enhancing overall well-being. During recessionary times, more economic activity may be shifted from marketplace to household level than when a stable economy exists.

In this research, in-kind income resulting from exchange with persons outside the family was examined to see if differences existed in interhousehold exchange patterns of Anglo and Mexican-American families. The objectives were to identify the extent of interhousehold exchange of goods and services and the perceived importance of and satisfaction from this exchange to families. In addition, the connection or relation of persons in the exchanging households to each other was explored.

## LITERATURE REVIEW

Interhousehold exchange of goods and services is limited in this study to situations in which persons are not paid for help given. A reciprocity of exchange is likely over time but is not a condition of exchange. This exchange exemplifies the nonmarket resource exchange system described by Boulding (1973) as the "grants economy." Involving one-way transfers of resources (money, goods or services) from individuals to larger economic units to other units without contractual reciprocal arrangements, grants are an important but frequently overlooked segment of the economy.

Data compiled by Lampman and Smeeding (1982) indicate that interfamily transfers of cash, food, and housing provided quantitatively more support than government transfers in the 1950's. By 1979, government sources provided 69 percent and interfamily transfer 31 percent of income maintenance, food, and housing support for families. Although lessened in importance, interfamily transfer was still an important component of total income.

Researchers have concluded that the exchange of goods and services between families can affect to a significant degree the well-being of a family (Baerwaldt and Morgan, 1978; Bevins, 1976; Boulding, 1973; Olson and Smith, 1980; Scholl, 1978). Some research has been limited to assessing the value of grants received from relatives only. For example, Olson and Smith (1980) reported that each of 75 families in a New Mexico study had received a grant in the form of goods or services from one or both sets of parents. Also studying help from relatives, Baerwaldt and Morgan (1973) discovered that more help was received from relatives by families with a younger or older head than by those with a middle-aged head. Conversely, middle-aged relatives made more contributions to families than did relatives of other ages. The researchers also noted a "surprising amount" of transfers being made to families by persons other than relatives (Baerwaldt and Morgan, 1973:207).

Comparison of interhousehold task exchange across ethnic groups has not received wide attention in the literature. Caplowitz' study (1979) of sharing with others as a strategy for coping did allow comparison of some types of exchange. He surveyed 1,982 persons in four major urban areas within the United States, a small percentage of whom were Spanish-speaking. Asked whether they had helped friends, or friends had helped them by lending money, sharing transportation, or babysitting, 60 percent of the Spanish-speaking persons reported sharing activities compared with 43 percent of the white and 47 percent of the black samples. Caplowitz concluded that "sharing would

<sup>1</sup>This study contributes to interregional Agricultural Experiment Station Research Project NC-128, "Quality of Life as Influenced by Area of Residence."

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seem to be very popular in the culture of the Spanish-speaking for they far outdistance both blacks and whites in this respect..." (1979:112). Although white and black respondents who were more severely affected by inflation were more likely to share than those not as affected, inflation did not appear to influence the sharing of tasks by Spanish-speaking respondents.

The current strength of kinship networks of families and their potential to provide support of various kinds to families is difficult to determine with any degree of precision. Family sociologist Sussman gave estimates of the proportion of different types of families in this country to Dempsey (1981) in personal communication. He estimated that extended families with three generations living in the same household or in close geographic proximity to one another comprise four percent of all family types. Sussman envisioned this kinship network as operating in a reciprocal exchange of goods and services.

Assuming that variation exists in the extent and importance of interhousehold exchange among ethnic groups, a portion of this variation could be accounted for by the presence of extended families within a community and the importance attached to family relationships. Different local kinship structures have been noted for Anglos and Mexican Americans (Keefe et al., 1979; Mindel, 1980). The number of local kin groups tends to be limited if existent at all for Anglos, whereas Mexican Americans tend to have relatives in large numbers of local households creating a kin network that may encompass three or more generations. This kin network structure has not been negated by migration patterns as Mexican Americans tend to migrate into areas where kin are already present (Mindel, 1980).

Relatively low percentages of two or more generations living within the same Mexican-American household have been noted over the past two decades (Grebler et al., 1970; Pensalo, 1967; Sena-Rivera, 1979; Ulibarri, 1966). For example, less than five percent of the Grebler et al. sample met that description. Case studies of tri-generational households led Sena-Rivera (1979) to conclude that they are not the norm within this country nor have they ever been. Rather, he suggests that large numbers of Mexican Americans are integrated into extended family clusters of essentially independent nuclear family households with close geographical ties. This would imply that support from extended families tends to be inter- rather than intra-household.

Studying resource exchange, Sena-Rivera (1979) dealt with economic interdependency as well as interaction among and within generations. Data were collected about cooperative projects such as house repairs or babysitting. Most families were essentially independent economically. The exceptions were most often elderly persons who depended upon children or grandchildren. Personal service, while universal and taken for granted, was not done as an end in itself but as needed.

That familism (values and behaviors reflecting the family as the most important social unit) is important among Mexican Americans has been stressed in literature (Keefe et al., 1979; Martinez, 1979; Miller, 1978; Mirande, 1977; Ramirez and Arce, 1981). The family as a unit, according to this concept, takes precedence over individual family members and certainly over external units. Including extended as well as nuclear members, the family is a key source of physical, social, and emotional support. To the extent that the family network meets economic needs, the exchange of tasks with persons outside the network or the use of public services may be lessened.

In summary, research has shown that interhousehold exchange of goods and services can enhance the economic well-being of families. Characteristics of Mexican-American families, namely the existence of extended family networks and the value of familism, may lead to greater exchange among households of this ethnicity than among Anglo households.

## METHODOLOGY

### Source of Data

Data for this study were collected in 1977 and 1978 by the Indiana and Michigan Experiment Stations as a part of an interdisciplinary regional research. The Indiana sample was comprised of Anglo families; Michigan sampled Mexican-American families. To be eligible for inclusion in the sample a family had to consist of husband, wife, and at least one child under the age of 19 living at home.

A questionnaire devised specifically for the regional project was completed by one spouse in a personal interview. The second spouse was either interviewed or completed a questionnaire which was later picked up by the interviewer. Only data from husbands are utilized in this analysis. A description of the project and an overview of the sample families can be found in Quality of Life as Influenced by Area of Residence (Metzen, et al., 1980).

### Definitions of Variables and Terminology

Household exchange clusters. Goods and services were divided into six broad categories for study rather than dealing with innumerable specific ones. Categories were chosen to include household goods and services which might be shared with persons outside the immediate family.

Frequency of exchange. Two questions were asked concerning the frequency of interhousehold exchange. One dealt with clusters of goods and services the respondent's family provided for others; the second asked about those provided by others for the respondent's family.

Exchange partner. The one question used to assess with whom each of the six clusters was exchanged read: "Are the things you do for others and

others do for you chiefly between your family and (1) relatives, (2) people in your neighborhood, (3) friends you know from work, (4) friends you know at church, or (5) others?"

Family/household. These terms are defined using Census Bureau definitions and are not used interchangeably. In this research, respondents lived in families by virtue of criteria for sample eligibility. However, we do not know if persons outside the family with whom tasks are exchanged lived in families; therefore, household is the correct term for reference to them.

Mexican American. Mexican Americans were selected for the Michigan sample from lists of Spanish surname families taken from city directories. They are referred to as Mexican Americans rather than Hispanics because of the greater likelihood that persons of Mexican rather than Cuban, Puerto Rican, or Central or South American descent live in Michigan.

Money income level. In the questionnaire, respondents checked one of 12 ranges of income to indicate their family's total income before taxes. The median family income range of the Indiana Anglo sample was higher than that of the Michigan Mexican-American sample. Therefore, each ethnic sample was divided into low and high income groups for statistical analyses. Respondents classified as low income had from no income to a total family income before taxes of below \$15,000. Those with \$15,000 or higher were placed in the high income group.

#### Statistical Analyses

To control for income differences evident within the samples, multiple crosstabulation analysis was applied to the data. For low and high income subsamples, the interhousehold task exchange variables were crosstabulated with the ethnic variable (Anglo versus Mexican American). The chi square statistic was the criterion for testing significance of the association between the variables. The probability level of 0.05 was considered indication of statistical significance.

Means were calculated for the frequency of exchange variables to allow comparison among task clusters. The nature of the data used in their calculation was such that the means serve better for ranking or comparing samples than as a precise average (mean) position of a sample on a given scale.

#### Description of Sample

Selected demographic and socioeconomic variables revealed that the Anglo respondents (180) and Mexican-American respondents (128) were similar in some respects and quite different in others. Each ethnic sample was approximately equally distributed between metropolitan and nonmetropolitan residence. Anglo husbands averaged 38.1 years of age; Mexican-American husbands had a mean age of 37.5 years. Mexican-American families were typically larger than Anglo families with averages of three and two children, respectively. Mexican Americans

were also more likely to live in extended families (have a relative outside the immediate family living in the household) than were Anglos; however, extended families occurred infrequently in both groups. Only 7 percent of the Mexican-American families and 4.5 percent of the Anglo families were extended.

Sample differences were most evident in socioeconomic characteristics. The mean income category for the Anglo sample represented an income level of \$15,000-\$19,999 and for the Mexican-American sample of \$9,000-\$11,999. Anglo husbands had a mean 13.6 years of education compared with 9.7 years for Mexican-American husbands. Employment status and occupational classification also differed. Mexican-American husbands were more likely than Anglo husbands to be unemployed (20 percent compared to 41 percent). The most frequent occupations of Anglo husbands were professional (23 percent), craftsmen/foremen (18 percent), or managerial or operative (15 percent each). Mexican-American husbands were typically employed in laborer/service worker (55 percent) or operative occupations (27 percent).

## RESULTS

### Importance of and Satisfaction with Interhousehold Exchange

Over one-half of the respondents indicated that exchanging goods and services was important or extremely important to their quality of life. The majority felt exchange important whether they were considering what their families did for others or what others did for them. A significant difference was found between high-income Anglos and Mexican Americans in assessing the importance of what others did for them to their quality of life. As shown in Table 1, 17 percent of the high-income Mexican Americans reported that what others did for them was extremely important, whereas 7 percent of the high-income Anglos rated it extremely important.

Approximately 60 percent of the respondents were satisfied or extremely satisfied with what they were doing for others or what others did for them (Table 1). Little difference was found between Anglo and Mexican-American families, whether high or low income, in their level of satisfaction with exchanged goods and services. Mean responses indicated that families were somewhat satisfied to satisfied with household exchange.

When both importance of and satisfaction with items were measured in the regional project from which these data were taken (Metzen, 1980), importance tended to be rated more highly than satisfaction. These data did not support that general pattern. Importance and satisfaction mean scores tended to have little spread; however, in five of eight comparisons, satisfaction means were higher than importance means.

TABLE 1. Importance of and Satisfaction with Inter-household Exchange

Variable	Low Income		High Income	
	Anglo n=48	M Am n=86	Anglo n=133	M Am n=42
<b>Importance of Family Doing for Others</b>				
	Percent			
Not important	8	21	22	17
Somewhat important	27	21	26	24
Important	48	46	41	43
Extremely important	17	13	11	17
Mean =	2.73	2.51	2.40	2.43
$X^2 = 3.83$ , not sign.	$X^2 = 1.52$ , not sign.			
<b>Satisfaction with Family Doing for Others</b>				
Dissatisfied (1)	6	18	22	17
Somewhat satisfied	25	20	21	24
Satisfied	52	54	46	45
Extremely sat. (4)	17	8	11	14
Mean =	2.79	2.51	2.45	2.57
$X^2 = 5.76$ , not sign.	$X^2 = .91$ , not sign.			
<b>Importance of Others Doing for Family</b>				
Not important	17	18	36	24
Somewhat important	26	17	32	14
Important	46	54	25	45
Extremely important	11	10	7	17
Mean =	2.50	2.56	2.03	2.54
$X^2 = 1.60$ , not sign.	$X^2 = 12.30$ , 4df, $p \leq .01$			
<b>Satisfaction with Others Doing for Family</b>				
Dissatisfied	20	20	14	21
Somewhat satisfied	17	16	25	19
Satisfied	46	59	50	50
Extremely satisfied	17	5	11	10
Mean =	2.61	2.49	2.56	2.48
$X^2 = 6.40$ , not sign.	$X^2 = 1.49$ , not sign.			

**Frequency of Goods and Services Provided to Others**

As indicated above, exchange was considered by the majority of families as important to their quality of life. Thus it was not surprising that for each household exchange cluster, others were helped to some extent (seldom through several times a week) by at least 59 percent of the Mexican-American and 20 percent of the Anglo families (Table 2). Based upon a scoring system of "never" as 0 to "several times a week" as 4, means ranged from 2.5 (midway between several times a year and several times a month) for transportation provided others by low-income Anglos to 1.0 (seldom) for high-income Anglos performance of housework for others.

The frequency of giving goods and services to others varied with income level, ethnic status, and by household exchange clusters. For example, one-half of low-income Anglos and about one-third of low-income Mexican Americans provided human care and transportation for others on a weekly

TABLE 2. Frequency of Family Providing Goods and Services to Others

Goods and Services	Low Income		High Income	
	Anglo n=48	M Am n=86	Anglo n=133	M Am n=42
<b>Human Care</b>				
	Percent			
Never	10	21	7	24
Seldom	23	30	28	26
Several times/yr.	17	14	33	12
/mo.	27	20	26	24
/wk.	23	15	7	14
Mean =	2.29	1.78	1.98	1.79
$X^2 = 4.52$ , not sign.	$X^2 = 15.51$ , 4df, $p \leq .01$			
<b>Home Maintenance</b>				
Never	11	24	8	29
Seldom	30	42	40	29
Several times/yr.	30	17	40	26
/mo.	15	14	9	14
/wk.	15	3	3	2
Mean =	1.94	1.32	1.59	1.33
$X^2 = 11.62$ , 4df, $p \leq .05$	$X^2 = 13.25$ , 4df, $p \leq .01$			
<b>Auto Repairs</b>				
Never	19	22	27	41
Seldom	27	35	39	24
Several times/yr.	27	15	29	21
/mo.	17	21	4	14
/wk.	10	7	1	0
Mean =	1.73	1.49	1.11	1.09
$X^2 = 3.75$ , not sign.	$X^2 = 10.51$ , 4df, $p \leq .05$			
<b>Housework</b>				
Never	25	35	30	33
Seldom	28	25	44	38
Several times/yr.	28	16	20	12
/mo.	11	13	5	5
/2k.	8	11	1	12
Mean =	1.49	1.39	1.03	1.24
$X^2 = 3.13$ , not sign.	$X^2 = 13.94$ , 4df, $p \leq .05$			
<b>Food and Garden Produce</b>				
Never	6	35	14	26
Seldom	29	18	19	33
Several times/yr.	29	18	50	19
/mo.	31	21	14	17
/wk.	4	8	2	5
Mean =	1.98	1.49	1.69	1.40
$X^2 = 16.17$ , 4df, $p \leq .01$	$X^2 = 14.21$ , 4df, $p \leq .01$			
<b>Transportation</b>				
Never	9	31	4	21
Seldom	13	25	19	21
Several times/yr.	28	12	19	21
/mo.	25	20	31	21
/wk.	25	13	12	17
Mean =	2.47	1.60	2.28	1.90
$X^2 = 16.16$ , 4df, $p \leq .01$	$X^2 = 15.86$ , 4df, $p \leq .01$			

or monthly basis. High-income Anglos and Mexican Americans differed only slightly from each other when considering the performance of these services for others on a weekly or monthly basis.



Mean scores for each household exchange cluster indicated that low-income Anglos tended to perform tasks for others more frequently than high-income Anglos. The trend for Mexican Americans was not as pronounced with human care and home maintenance means being nearly the same for both income levels. Transportation was provided for other families more frequently by high than by low-income Mexican Americans, a pattern atypical of other clusters or among Anglos.

The frequency of exchange of each of the six household exchange clusters differed significantly between high-income ethnic groups. With the exception of housework, mean scores indicated that Anglos exchanged goods and services more frequently than Mexican Americans. Housework was done for others on an unpaid basis at least several times a month or more often by 17 percent of high-income Mexican Americans but only by 6 percent of high-income Anglos.

At low-income levels, Anglos also gave goods and services to other households more frequently than Mexican Americans. However, significant differences between the ethnic groups existed only for home maintenance, food and garden produce, and transportation.

Transportation and human care were the two services provided most often for other households regardless of ethnicity or income level. These are services that, if needed at all, tend to be needed on a frequent basis, perhaps over an extended period of time. Housework, auto repair, and home maintenance were least frequently provided for others. Housework is a task done by many families as their standards and time dictate. Auto repair and home maintenance tend to be required on an infrequent and nonscheduled basis and may require special skills not readily found in all families.

#### Frequency of Goods and Services Provided by Others for Family

A comparison of means in Table 2 with those in Table 3 indicates that the families in this study perceived themselves as doing more for others than others did for them (Table 3). Neither Anglos nor Mexican Americans of either income level noted a greater level of goods and services being provided for them than they had provided for others.

For each household exchange cluster, others were seen as providing some help to the family by at least 53 percent of Anglos and 43 percent of Mexican Americans. No significant differences were found between low-income Anglos and Mexican Americans in the frequency with which others provided goods and services for them. At the high-income level, significant differences were found for home maintenance, auto repair, food and garden produce, and transportation. For these clusters, Mexican Americans appeared more likely than Anglos to have responses either of never or of several times a month or week.

TABLE 3. Frequency of Others Providing Goods and Services to Family

Goods and Services	Low Income		High Income	
	Anglo n=48	M Am n=86	Anglo n=133	M Am n=42
<b>Human Care</b>				
	Percent			
Never	31	23	18	33
Seldom	21	35	30	21
Several times/yr.	23	14	34	21
/mo.	15	12	15	17
/wk.	10	11	3	7
Mean =	1.52	1.41	1.55	1.43
$\chi^2 = 3.79$ , not sign.			$\chi^2 = 7.14$ , not sign.	
<b>Home Maintenance</b>				
Never	27	33	23	41
Seldom	38	41	55	33
Several times/yr.	23	13	23	14
/mo.	8	12	0	7
/wk.	4	2	0	5
Mean =	1.25	1.10	1.00	1.05
$\chi^2 = 3.98$ , not sign.			$\chi^2 = 23.69$ , 4df, $p \leq .001$	
<b>Auto Repair</b>				
Never	40	30	38	55
Seldom	30	44	49	21
Several times/yr.	26	17	12	17
/mo.	4	6	1	5
/wk.	0	4	1	1
Mean =	.94	1.10	.78	.79
$\chi^2 = 5.63$ , not sign.			$\chi^2 = 12.20$ , 4df, $p \leq .05$	
<b>Housework</b>				
Never	38	42	47	57
Seldom	31	32	42	31
Several times/yr.	21	11	10	5
/mo.	10	9	1	5
/wk.	0	6	0	2
Mean =	1.04	1.05	.65	.64
$\chi^2 = 5.29$ , not sign.			$\chi^2 = 9.05$ , not sign.	
<b>Food and Garden Produce</b>				
Never	27	34	10	31
Seldom	25	33	39	31
Several times/yr.	31	16	48	26
/mo.	10	12	3	7
/wk.	6	5	0	5
Mean =	1.48	1.20	1.37	1.24
$\chi^2 = 4.38$ , not sign.			$\chi^2 = 21.49$ , 4df, $p \leq .001$	
<b>Transportation</b>				
Never	23	27	14	36
Seldom	31	39	45	26
Several times/yr.	21	15	30	14
/mo.	15	8	6	17
/wk.	10	11	5	7
Mean =	1.58	1.25	1.41	1.33
$\chi^2 = 2.41$ , not sign.			$\chi^2 = 17.75$ , 4df, $p \leq .01$	

EXCHANGE PARTNERS

Goods and services were shared more frequently with relatives than with neighbors or church or work friends regardless of the type being exchanged, ethnicity, or income level (Table 4). With the exception of housework, larger percentages of Mexican Americans than Anglos at each income level exchanged goods and services with relatives. A wide range was found in the percentages of ethnic groups sharing goods and services with relatives, from 83 percent of low-income Anglos exchanging housework to only 30 percent of high-income Anglos sharing transportation.

After relatives, neighbors were most likely to be partners for exchanging goods and services, ranging from approximately 10 to 29 percent for both Anglos and Mexican Americans. With the exception of housework, larger percentages of Anglos than Mexican Americans exchanged each good or service with neighbors.

Work or church friends were the least frequently found exchange partners. Nevertheless, 20 percent or more of the low-income Anglo sample exchanged home maintenance and auto repair with work and church friends. In the high-income samples, transportation was most frequently exchanged with work and church friends.

At both income levels, significant differences in exchange partners were found between Anglos and Mexican Americans only for transportation. In addition, significant differences were found between high-income samples for exchange of human care and food and garden produce.

DISCUSSION AND CONCLUSIONS

Exchanging goods and services among households, one type of in-kind income, can augment families' monetary income. Interhousehold exchange did occur, although varying in extent, in over three-fourths of the Anglo and Mexican-American families participating in this research regardless of income level. The frequency of exchange varied greatly by type of goods or services exchanged by income and ethnic groups. For example, only four percent of the high-income Anglo families had never provided transportation to others whereas 57 percent of the high-income Mexican American families had never had housework done by others for them.

If interhousehold exchange is a means of enhancing economic well-being, then low-income families might be assumed to consider this exchange as more important than high-income families. Smaller percentages of low-income than high-income Anglo and Mexican-American families rated goods and services provided by others for the family (see Table 1) as not important. Goods and services provided by the family for others was also rated not important by a smaller percentage of low-income than of high-income Anglos. These data do not reflect whether the underlying value in exchange was viewed as a means of improving the family's economic well-being or as a means of

TABLE 4. Exchange Partner for Goods and Services

Goods and Services	Low Income		High Income	
	Anglo	M Am	Anglo	M Am
	Percent			
Human Care	n=45	n=86	n=127	n=38
Relative	62	66	51	76
Neighbor	18	12	24	13
Work friend	2	7	2	5
Church friend	9	7	9	3
Other	9	8	13	3
	$X^2 = 2.30$ , not sign. $X^2=10.32$ , 4df, $p \leq .05$			
Home Maintenance	n=44	n=86	n=120	n=39
Relative	61	64	56	67
Neighbor	11	10	18	13
Work friend	9	8	7	8
Church friend	12	8	6	5
Other	16	9	13	8
	$X^2 = 2.85$ , not sign. $X^2 = 2.08$ , not sign.			
Auto Repair	n=44	n=85	n=104	n=39
Relative	50	65	43	67
Neighbor	16	11	20	8
Work friend	18	11	14	5
Church friend	2	7	3	5
Other	14	7	19	15
	$X^2 = 5.55$ , not sign. $X^2 = 8.87$ , not sign.			
Housework	n=41	n=85	n=104	n=40
Relative	83	61	69	58
Neighbor	7	18	13	28
Work friend	0	8	2	7
Church friend	2	7	4	2
Other	7	6	12	5
	$X^2 = 8.51$ , not sign. $X^2 = 8.31$ , not sign.			
Food & Garden Produce	n=45	n=82	n=126	n=40
Relative	67	71	44	70
Neighbor	18	11	29	15
Work friend	0	9	5	0
Church friend	7	2	5	10
Other	9	7	17	5
	$X^2 = 6.33$ , not sign. $X^2=12.61$ , 4df, $p \leq .05$			
Transportation	n=44	n=85	n=125	n=40
Relative	45	71	30	58
Neighbor	16	11	26	15
Work friend	7	7	11	15
Church friend	9	8	10	2
Other	23	3	24	10
	$X^2=14.25$ , 4df, $p \leq .01$ $X^2=13.15$ , 4df, $p \leq .01$			

implementing the value of sharing, In the latter instance, the psychological benefit from giving may outweigh the economic benefit.

Even though both ethnic groups exchanged goods and services more frequently with relatives than with work or church friends, Mexican Americans were more likely than Anglos to exchange with relatives. This lends some support to the theory of Mindel (1980) that Mexican Americans

have a larger kin network structure at the local level than Anglos. It also supports the value of the family unit (familism) to Mexican-American families. To the extent that the family network met economic or other needs, exchange with persons outside the network may have been lessened.

The research raises questions which have implications for families and communities as well as for public policy. What structure do family networks now take and what role do they play in providing for needs of family members? What does sharing mean to individuals? Does our dependence upon monetary income tend to deny the experience of sharing or exchanging with others? If so, how does this impact interpersonal relationships and a sense of belonging or of community? What is the most desirable, effective, and feasible division of responsibility between the family and individuals outside the family or public agencies in meeting individual family needs? If government social welfare types of programs are to be held at approximately their current level of funding or even decreased, will families have fewer resources or find other means to supplement resources? Will this lead to more or less inter-household exchange? Numerous means exist for coping with economic uncertainty; interhousehold exchange cannot be overlooked as one of them.

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THEORIES OF ALTRUISM IN THE NEW HOUSEHOLD ECONOMICS AND SOCIOBIOLOGY:  
DEFINITIVE EVIDENCE FROM THE 1983 UTAH FLOOD

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ABSTRACT

Historically, social scientists have found altruistic behavior difficult to explain. Two theories of altruism within families have recently been forwarded, one stemming from sociobiology and the other from microeconomics. The two theories yield different and occasionally conflicting propositions. The Utah flood of 1983 provided data with which to test these two theories. Results of the empirical work conclusively demonstrate that theories of altruism in the new household economics and sociobiology each have some validity, depending on the sex of the decision maker.

Sociologists have identified a number of positive outcomes from among the otherwise negative effects of natural disasters: strengthening of family solidarity [12], increasing access to centers of community power [13], and building community interdependence and consensus [18]. An equally important and positive aspect of natural disasters is that they provide the opportunity to test theories in family economics under real world conditions.<sup>3</sup> For example, one can examine how decisions are made when people lack the time, information, and calm surroundings implied by most theories of consumer choice.

The Utah flood of 1983 presents the opportunity to examine, under natural conditions, family economic behavior that is relatively rare but theoretically important. In particular, the intrafamily economic transfers observed during the Utah flood permit a direct test of whether the new household economics or sociobiology provides a better explanation of familial altruism.

THEORIES OF CHOICE IN DISASTER SITUATIONS

Most theories of choice in disaster situations are fundamentally economic in their logic. Decision makers are viewed as weighing the expected utilities of alternative actions, given various degrees of certainty regarding the possible outcomes [8,10,17]. These theories take the decision maker's sources of utility as given

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<sup>3</sup> Warning: Reading this paper may be hazardous to your professional development.

and then examine the processes by which satisfaction is maximized (or satisfied) [20].

Until recently, displays of altruism in disaster situations were difficult to explain using traditional economic choice theory. As a result, displays of altruism have been attributed to non-economic forces like empathy [1,9,15], transmission of altruistic norms [7], or expectations of reciprocal altruistic behavior [2,21,22]. Recently, two additional explanations of altruism have been offered which rob altruism of the mystery and nobility which it enjoyed in earlier interpretations. One of these explanations draws on sociobiological theory, while the other is grounded in microeconomic theory.

The Sociobiology of Altruism

Sociobiological theories of "choice" differ from economic theories inasmuch as they specify a single maximand (quantity to be maximized)--the perpetuation of one's genes. This can be accomplished through "selfish" behavior which increases one's own reproduction or by "altruistic" behavior which increases the reproduction of those with whom one's genes are shared (e.g., a sibling). Genes which promote either type of behavior are "fit" in the sense that they are likely to be reproduced in the next generation [23]. According to the sociobiological view, then, altruism is simply one way in which genes are transmitted.

The sociobiological view of altruism is capable of generating testable propositions. For example, sociobiology would predict that a father would sacrifice more readily for his son than his fraternal nephew, and more readily for his own nephew than his wife's nephew. A second implication is that mothers will be more altruistic toward their offspring than will fathers. This is attributable to the fact that human females are more restricted in their number of potential offspring than are males. Whereas a male is theoretically capable of impregnating several women for most of his life, a female can reproduce her genes, at most, every nine months for two or three decades. Thus, a mother has a larger "genetic investment" in any one child than does a father [19].

In sum, the sociobiology of altruism offers a clear explanation of family altruism. It posits that intrafamily transfers are motivated by efforts to perpetuate one's genes through direct or indirect offspring. When faced with a choice of for whom to make sacrifices, sociobiology predicts that a familial altruist will first aid those with whom he shares the most genes.

Systematic, analytical study of familial altruism in the economics literature is a rather recent phenomenon and can be largely attributed to the work of one person, Gary Becker [3,5]. Becker observes that selfishness is accepted as the primary motive in most marketplace behavior but is considered insufficient to explain behavior in the context of the family. Indeed, he notes that researchers in disciplines other than economics frequently postulate that unselfishness is the driving force behind most intrafamily exchanges [3]. Consequently, Becker undertakes to investigate whether family altruism is compatible with micro-economic theory, given its assumption of self-interested behavior.

The basic premise of Becker's theory is that familial altruists have utility functions which are interdependent with the utility levels of other family members.<sup>4</sup> Mathematically,

$$U_a = u_a [Z_{a1}, \dots, Z_{am}, \psi(U_{b1}), \dots, \psi(U_{bn})] \quad (1)$$

$$\delta U_a / \delta U_{bi} > 0 \quad (2)$$

$$\delta U_a / \delta Z_{ai} > 0 \quad (3)$$

where

$U_a$  = utility of the altruist

$U_{bi}$  = utility of beneficiary  $i$

$Z_{ak}$  = good  $k$  consumed by the altruist.

The altruist's budget constraint is

$$\sum_{i=1}^n T_i + \sum_{k=1}^m (P_k Z_{ak}) = I_a \quad (4)$$

where

$P_k$  = price of the  $k^{th}$  good consumed by the altruist

$T_i$  = the amount that the altruist transfers to beneficiary  $i$

$Y_a$  = the altruist's income.

Furthermore, the budget constraint of a beneficiary can be written as

$$\sum_{k=1}^m P_k Z_{bk} = I_{bi} + T_i \quad (5)$$

Substituting (5) into (4), the full budget constraint becomes

$$\sum_{i=1}^n \sum_{k=1}^m P_k Z_{bi} + \sum_{k=1}^m P_k Z_a = I_a + \sum_{i=1}^n I_{bi} = FI \quad (6)$$

where

<sup>4</sup>Ben-Porath [6] suggests that given the recent dramatic changes in the demographic structure of the family, identification of this interdependence may well be the most appropriate way in which to define a family.

FI = total family income.

The altruist maximizes his<sup>5</sup> utility function given by equation (1) subject to the income constraint given by equation (5). Allocation of resources is thus determined by the equilibrium condition that

$$\delta U_a / \delta Z_{ak} / \delta U_a / \delta Z_{bk} = \frac{P_{ak}}{P_{bk}} \quad (7)$$

Out of this model comes several testable propositions. This paper focuses on two of these hypotheses. The first arises from Becker's specification of the altruist's utility function. In equation (1), the utility function's components and their first derivatives (equations 2 and 3) imply that an altruist will always take action that prevents a decline or fosters an increase in a beneficiary's income, ceteris paribus. Moreover, Becker argues that an effective altruist would "refrain from the actions that raise his own income if they lower hers by even more, and he would take actions that lower his own if they raise her income even more" [3, p.177].

The second behavioral prediction that comes from this model is one that Becker has dubbed "The Rotten Kid Theorem." In this theorem, Becker argues that "each beneficiary, no matter how selfish, maximizes the family income of her benefactor and thereby internalizes all effects of her actions on other beneficiaries" [3, p.183]. Restated, this theorem posits that even a rotten kid will not take an action that raises her own income at the expense of a hated sibling's (or parent's) income because the rotten kid knows that the altruist will cut her transfer by more than what she would gain by the action.

This premise is illustrated graphically in Figure 1. The rotten kid's income is plotted on the vertical axis and all other family members' income is plotted on the horizontal axis. At the point of the initial endowments, all other family members have  $Y_a$  in income and the rotten kid has  $Y_b$ . Because the altruist gets utility from the rotten kid's consumption, he makes a transfer to the rotten kid of  $T_b$ , so that the utility maximizing family income distribution is reached at point D. Now suppose that the rotten kid engages in a selfish action, raising her own income at the expense of the other family members' income. The budget constraint shifts back to line  $B$  and the initial endowment is now at point E'.<sup>6</sup> If the rotten kid were to continue to receive the same transfer from the altruist, she would clearly be better off for

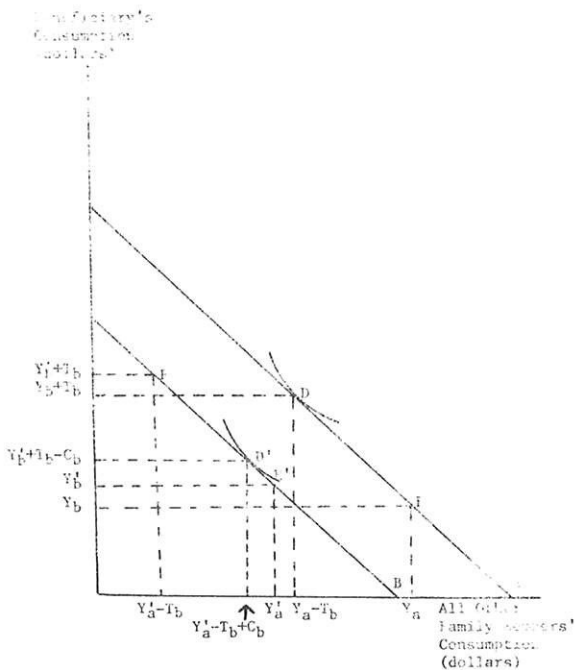
<sup>5</sup>In line with the prevailing sexist terminology used in economic literature, we shall designate the altruist as a male and the beneficiary as a female in the discussion that follows.

<sup>6</sup>Note that at E' the rotten kid's initial income level was improved while the remaining family members' income holdings have worsened.

having taken the self-serving action  $[(Y_b^i + T_b) > (Y_b^b + T_b)]$ . However, now that total family income has been reduced, the altruist is compelled to withdraw a portion of the rotten kid's transfer,  $C_b$ . This reduces the rotten kid's income below what it had been in the earlier scenario  $[(Y_b^i + T_b - C_b) < (Y_b^b + T_b)]$  and it makes the payoff to such malicious action negative, even for the most selfish at heart. Thus, Becker argues that "even selfish and envious children or wives act as if they are altruistic toward their siblings and parents or husbands if these persons are altruistic toward them" [5, p.187].

FIGURE 1

The Effects of a Selfish Beneficiary's Actions on an Altruist's Intrafamily Transfers and Their Resulting Consumption Bundles<sup>a</sup>



<sup>a</sup>This graph is a modified version of a diagram presented by Becker [3].

Becker thus sets out two clear, testable propositions in his model of family altruism. First, family members who are altruistic in an economic sense should always take actions which raise (or minimize the loss of) total family income, even if such action is detrimental to their own welfare. Second, selfish people who live in a family that includes an economic altruist will also behave unselfishly because it is in their own interest to do so. The model from which these assertions follow is based on several fairly stringent assumptions.

First, Becker assumes that family members have perfect information with respect to the distribution of resources within the household [3]. For example, if one child steals away a sibling's

paper route by underbidding the sibling's wage, the model assumes that the altruist has full knowledge of the negative change in total family income. Second, as Hirshleifer notes [14], the Rotten Kid Theorem only works if the altruist has the final word. That is, one must assume that the altruist has the power to cut his transfer by  $C_b$  after the rotten kid takes her action. Thus, the model assumes that actions in the family have a particular sequence. The altruist makes initial income transfers to his dependents, the rotten kid undercuts her sibling's wage and takes away the paper route, and finally, the altruist notes the decline in family income and alters his transfers accordingly. If the altruist does not have the power to take the final action, then the Rotten Kid Theorem may not hold.

These two assumptions are strong ones. Nevertheless, they are commonly made in neo-classical economics [11,16] and are fairly realistic given the fundamental characteristics of most families (i.e., intimate knowledge of others' wants and the quasi-dictatorial powers of husbands/parents). However, there is an additional assumption that Becker makes which could jeopardize the validity of his theory of familial altruism. This assumption is illustrated with the help of Figure 2.

Imagine an altruistic husband whose selfish wife holds a part-time job. Their initial income shares are represented by point E in Figure 2. Given this beginning resource distribution, the husband is an "effective" altruist. He gives his wife a transfer of  $T_b$  and the equilibrium distribution of income is at point D. Now suppose that the wife takes a full-time job as an O.S.H.A. inspector even though she knows that one of her first duties will be to shut down the "sweat shop" where her husband is foreman. If we follow the premise of the Rotten Kid Theorem, one would predict that she would never take such an action because her altruistic husband would respond by reducing his transfers to her by more than her increase in earnings. But what if the added income from her new job is greater than his initial transfers  $[(Y_b^i - Y_b) > T_b]$ ? Then a truly selfish wife would take the job regardless

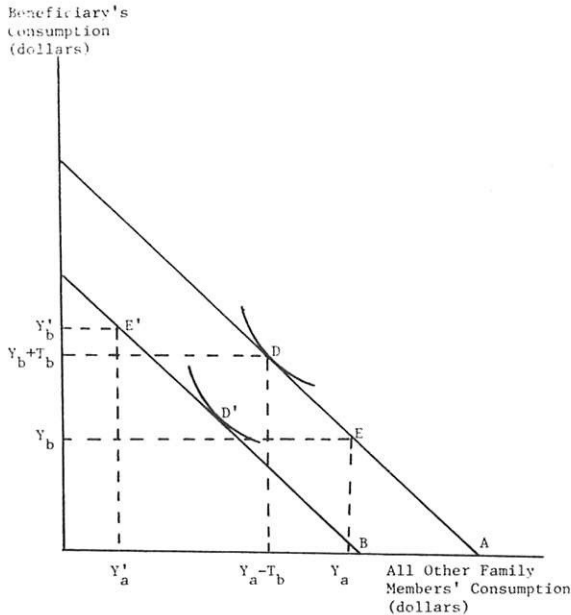
<sup>7</sup> Here the altruist does not have to know the source of the change in order to react. Indeed, all he needs to know is that there is a reduction in family income [5].

<sup>8</sup> Effectiveness is essentially determined by the relationship between initial resource allocations and the altruist's preference orderings. Given the altruist's preference mapping, he is said to be effective in his actions only if the initial resource distribution is such that he would gain utility from transferring resources to the beneficiary. In terms of Figure 1, this means that the starting distribution of resources must be to the right of the utility maximizing point on the budget constraint [5]. It is only when this condition is met that an altruist can be deemed effective.

of the consequences her actions might have for total family income.

FIGURE 2

The Effects of a Selfish Beneficiary's Actions on an Altruist's Intrafamily Transfers and Their Resulting Consumption Bundles: The Case Where the Rotten Kid Acts Rotten



It is clear from this scenario that altruistic behavior only breeds reciprocal behavior among selfish family members if the transfer that the selfish person will lose is greater than what she stands to gain by engaging in the piggish behavior. It is quite plausible that for family members in some situations, this is not the case. Thus, Becker's theory of family altruism may rest on an assumption that is only true under limited conditions.

In all, then, Becker's theory of family altruism makes two predictions. First, altruists will act so as to maximize family income. Second, selfish family members will find it in their own self-interest to maximize family income. These predictions, along with those made based on sociobiology, are now tested and compared using data gathered from the Utah flood of 1983.

#### METHODS

Polygyny (the practice of having two or more wives) has figured prominently in the work of Gary Becker. In *A Treatise on the Family* [3] polygyny is discussed in relation to both human and nonhuman families, and it is used to demonstrate points concerning marriage markets, assortative mating, divorce, fertility, sex ratio of children, and household production. (Students

in search of a master's thesis topic might wish to tabulate the number of references to polygyny in Becker's numerous publications. For a doctoral thesis, throw in references to polyandry.) It is therefore fitting that Becker's theory of altruism be definitively tested against the sociobiological theory of altruism in the context of a polygynous family.

#### The Case Study

Consider the following situation which arose during the flood that occurred in Utah in the spring of 1983. A polygynist doctor of naturopathy (Dr. X) lived in a small house at the mouth of a canyon. On the south-facing slope lived his 45-year-old wife (Wife 1) in a house valued at \$50,000. Wife 1 had been unable to conceive children and had little prospect of doing so in the future. On the north-facing slope of the canyon resided Dr. X's 40-year-old wife (Wife 2), along with her seventeen children. Her house was larger but more run-down than that of Wife 1, and it too was worth \$50,000. Neither wife was employed outside of the family compound, but each wife was given an annual stipend based on the principle of \$1000 per month. Thus, Wife 1 received \$1000 each year while Wife 2 received an annual stipend of \$18,000. Both wives were content with these arrangements, and each wife regarded her house as her own.

On April 1, 1983, the less-wooded, south-facing side of the canyon became engulfed in mud, and Wife 1's house began to slide dangerously downward. Wife 1 desperately began to shore up her house to prevent it from toppling down into the canyon below. At the same time, she began yelling for help from her husband and "sister" (Wife 2).

Meanwhile in the next canyon, the home of Farmer Y, Dr. X's younger bachelor brother, was also sliding downward toward destruction. Farmer Y telephoned his brother and two sister-in-laws to ask for help in saving his house. Wife 1 explained her predicament and wished Farmer Y good luck, secretly hoping that her husband and "sister" would help her rather than him. Thus, Dr. X faced the choice of helping his childless wife or his brother. Wife 2 had to decide between aiding her "sister" or her brother-in-law. To make Wife 2's choice even more difficult, Farmer Y offered her \$5,000 in exchange for her labor and that of her seventeen children. Figure 3 displays in graphic and dramatic fashion the situation faced by Dr. X and Wife 2.

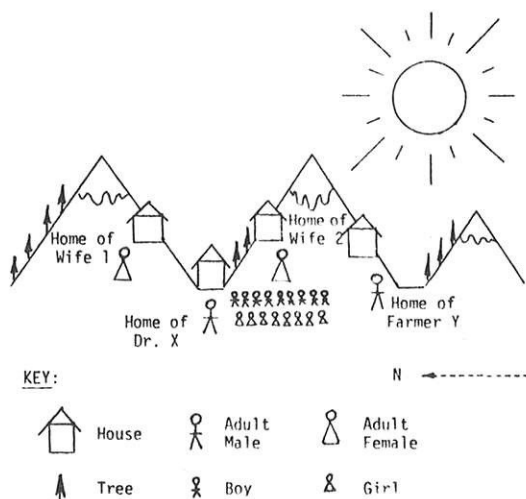
#### RESULTS

##### Predicted Outcomes

The theories of altruism in the new household economics and sociobiology yield differing predictions regarding Dr. X's decision. According to Becker, Dr. X would help Wife 1

FIGURE 3

Graphic Illustration of the Decision Environment for Dr. X and Wife 2



shore up her home because this action would minimize the loss to family income. According to sociobiological theory, however, Dr. X would help his brother. This is because Dr. X shares 50 percent of his genes with his brother but none with his barren wife. Thus, the two theories yield opposite predictions.

Wife 2 does not share genes with either her "sister" or her brother-in-law, so sociobiological theory cannot predict her behavior. However, Becker's theory of altruism predicts her choice between helping her "sister" or accepting the \$5,000 dollars from her brother-in-law. Becker predicts that Wife 2 will help Wife 1 preserve the family's assets. If she does not, and the house of Wife 1 is destroyed, then Dr. X will reduce his \$18,000 per year transfer to her by at least \$5,000 and use the savings to help build a new home for Wife 1. Thus, consistent with the Rotten Kid Theorem, a selfish beneficiary (Wife 2) will be led by an invisible hand of self-interest to act as if she is altruistic in order to maximize family income.

Observed Behavior

Dr. X, as predicted by sociobiological theory, chose to assist his brother rather than Wife 1. But why? Upon arriving at his brother's house, Dr. X saw Wife 2 and his seventeen children busy at work. Before being seen by either his brother or Wife 2, Dr. X slipped off, seething with jealousy, to help Wife 1 save her house.

Why was Wife 2 acting contrary to Becker's theory of altruism by choosing to help Farmer Y rather than her "sister"? Farmer Y, having studied family economics before specializing in agricultural economics, was aware of the Rotten Kid Theorem. Accordingly, he realized that it was possible to make Wife 2 an offer that she could

not refuse. Farmer Y offered Wife 2 the discounted future value of \$18,001 per year over the expected remainder of her life plus indefinite use of his home. Thus, Wife 2 stood to gain more from her brother-in-law than her altruistic husband could withhold in transfers.

CONCLUSION

The behavior reported in this study indicates that theories of altruism in the new household economics and sociobiology both have some validity, depending on the sex of the decision maker. It appears that males are driven by biological needs while the actions of women are based on rational calculation. However, before basing public policy on the results of this study, several reviewers recommended that its findings be replicated in Dimebox, Texas.

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