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Economic Theories of the Household: A Critical Review

Päivi Mattila-Wiro

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Päivi Mattila-Wiro is affiliated with the School of Business and Economics, University of Jyväskylä.

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UNU World Institute for Development Economics Research (UNU/WIDER)
Katajanokanlaituri 6 B
00160 Helsinki, Finland

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ABSTRACT

The aim of this paper is to review the principal assumptions and aspects of the unitary household model and collective models of household behaviour. Empirical studies are presented to assess whether the theories can offer adequate descriptions of household behaviour and to examine the types of policy implications that can be drawn from these. The paper concludes that the models reviewed lack the analytical tools to provide an understanding of the reality of households. Theories are unrealistic and therefore are of little use in the design of policies or projects which endeavour to help people.

The review of the theories of the household shows that no particular approach is sufficiently advanced to dominate the field of household economics. Terminology used in household economic theories relies excessively on concepts from theories on consumer choice, or of the firm, and even on the theory of international trade (comparative advantage). These similarities cause problems when these well-known theories are utilized in an effort to understand the complex operations and behaviour of households in various cultures and societies.

The neoclassical theories are basically founded on rather simplistic assumptions of human behaviour. They offer an easy way of eluding the intricate and challenging problems posed by households and their economic and social functions.

To improve the well-being of the household (including all members) is not dependent on the application of market economy principles only. Non-market behaviour such as security, closeness, humanity, and social connections, is just as important .

There is an urgent need to elaborate realistic household economic theories so as to break-out of the boundaries and limits that old theories have confined analysts and practitioners for so long. The development of a new economic theory of the household requires the incorporation of *humane* aspects of household operations into the theoretical assumptions. A completely new economic viewpoint should be adopted to see the human being and her economic operations through a broader framework which includes the market system as a special case.

There is an urgent need—and this should not be underestimated—to design realistic household economic theories so as to overcome the confines

imposed by the old theories on analysts and practitioners for so long. The development of a new economic theory of the household requires the brave incorporation of the *humane* aspects of household operations into theory assumptions. A completely new economic viewpoint should be adopted to see the human being and his economic operations in a broader framework which includes the market system as a special case.

I BACKGROUND

1.1 Introduction

Economic theories of the household try to capture the complex structures of households and their behaviour. Information on the demographic structure, decision-making process, resource allocation, income earning mechanisms and gender division of labour is a prerequisite for understanding the effects of public or private sector interventions at the microlevel as well as their macrolevel consequences.

The introductory part of the paper presents the objectives of the study and an overview of the subject. The household economic models described in this paper are divided into two types: the unitary model of household behaviour and collective models of household behaviour (Alderman *et al*. 1995). All household economic models presented here belong to the tradition of neoclassical economics. Likewise, all models reviewed are based on the consumer choice theory.

The second section of the paper reviews Becker's 'new household economic theory', which is the most complete presentation of the unitary household model. The unitary model is the prevailing, widely applied model of resource and labour time distribution within a household. Section three presents a new concept in the analysis of household behaviour: the humane human capital. The section starts by explaining the concept of 'humane human capital' and then goes on to a more detailed analysis of the intrinsically non-market aspects of the concept.

The collective models of household behaviour, reviewed in section four, are under constant evolution. The latest (but still incomplete) modifications attempt to include the gender dimension in the collective model. The first of these models, so-called bargaining models, are based on the unitary model of household economic behaviour. While the unitary model considers one person as representing the entire household, bargaining models have two actors within a household, whose interests differ and thus bargaining results.

In section five some of the main criticisms of the neoclassical household economic models are reviewed. The controversial issues presented in this paper concentrate mainly on the so-called feminist economists and their

bold arguments against the many assumptions held by the traditional view. Arguably, this critique still has many shortcomings and these economists have not been able to present a well-designed alternative to the traditional models. Nevertheless, the controversy brings interesting and colourful ideas, which should be considered carefully in developing household economic theories further. Finally, section six provides a summary, and draws policy conclusions.

The paper briefly refers to some of the findings and results as well as policy implications of empirical tests of household economic theories. These tests endeavour to determine whether or not theories give a reliable picture of real life activities. Most studies have concentrated on examining the unitary model of household behaviour. Much less effort has been given to collective models, and particularly the differences between various collective models (Ruuskanen 1997). Still fewer tests can illustrate the consequences of policy intervention on households.

There are many difficulties in testing theories, one of the biggest being the lack of suitable and adequate data on collective models of household behaviour. These difficulties can lead at times to mixed results, a fact which again makes policy implications complicated.

1.2 Assumptions concerning the household, the consumer and the producer

It is obvious that finding a tenable definition of the household is a complicated task. Household behaviour includes many dimensions, and is affected by many factors. How can we combine all the aspects of human life into one definition, while keeping it at the same time plausible and simple?

1.2.1 Household as a rational individual

All economic models assume that the household is a rationally behaving unit. The value of time of household members and the value of consumption and production of goods are determined by market mechanisms.

Traditionally, the consumer economic theory—the basis of other neoclassical household economic theories—considers the consumer *an individual*, implying that the single head of a household is the consumer. But is this really an appropriate unit for economic analysis? If an individual is taken as the consumer, this raises certain queries, for example, whether

children are consumers. Instead, the consumer unit should be regarded as two or more people who comprise a household. Decisions on purchases, sales, and consumption can thus be analysed as decisions of the group.

The unitary model assumes that decisions within a household are made jointly and that the household maximizes a single set of objectives for all its members (Ellis 1988). A household acts as a single unit when all its members have exactly the same preferences and subsequently the same utility functions. In other words, all household resources are pooled.[1] In the unitary model, social harmony without conflict is the chief characteristic of the household.

Ruuskanen (1997) lists three reasons for utilizing the single utility function to represent the entire household and the preferences of all members: a dictator, an altruistic family (applied in Becker's new household economic theory) and a social welfare function.

When a dictator is considered the all-ruling head of a household, it implies that one individual is assumed to make decisions within the household and keep its operations in line. However, all household members do not necessarily behave voluntarily in preference maximization and in concurrence to the dictator's orders. If violence is present within a household, it indicates that somebody (the dictator) is forcing other members to accept the assumed common good. When theories and models refer to violence as one of the means of acquiring the common good of a household, this violence is not condemned. Galbraith (1974) states somewhat strongly that neoclassical economics resolves the problem of nonexpression of individual personality and preferences by ignoring the subordination of the individual (mainly women) and the inner relationships within a household.

Furthermore, there is a major problem in the definition of 'the common good'. Who decides, or who has a right to decide, what is the best possible EFoutcome for the household and for all its members? There is also the question: on what basis does one member become the head of a household?

Within the neoclassical tradition there have been some efforts to solve the problem of individual preferences by forming aggregate preferences or

[1] Bergström (1995) claims that the natural course of neoclassical economics necessarily is not to assume that households act as single agents. However, the term 'unitary' model is sufficiently moderate to encompass several models which consider a household or family in aggregate behaving 'as if' it is maximizing the family utility function.

average utility functions which would then indicate the level of well-being of the whole household (social welfare function). Each individual utility function could be labelled with a predetermined weight. For example, Sen (1966, ref. Alderman *et al.* 1995) has taken the welfare of the family as the weighted sum of the net utility of all members.

1.2.2 Household as a producer

The unitary model, like the traditional consumer theory, sees the household not only as a consumer, but also as a producer. In this case, the household is comparable to a competitive firm in a market economy. A household faces a production possibility frontier. Within a given time period, a household has limited resources, but also alternative uses and fixed technologies for home production.

If the household is viewed as a firm, or alternatively as a consumer only, it simplifies both the structure and operations of the household considerably, leaving policymakers without a full understanding of the effects of various policies on the members of a household.[2] Production in a household has the actual well-being of its members as the ultimate goal. The objective of an enterprise is profits, usually for the owner who may be different from the workers, but for a selfishly-acting consumer it is the maximization of his utility function.

Attempting to explain household production by *analogy,* i.e. by applying the theory of the firm, also minimizes or totally ignores many production activities performed within the household. From a neoclassical microeconomics point of view, goods which cannot be exchanged in a market are not a commodity. Consequently, as household production is not usually exchanged in markets (except in agricultural households) the commodity produced is not labelled with a market price. This introduces the question: what happens if no markets exist (as, for example, in some parts of remote Africa)?

1.2.3 Unequal distribution within the household

In the past, economists have not paid attention to the distribution of resources and commodities within the household because traditional economic tools are not well suited for their analysis. It is assumed that inequality in resource distribution is generated by preferences shared by all household members that support this inequality. The unequal distribution of

[2] According to Chayanov, an absolute misinterpretation of the peasant family farm is to view it as a business, or an enterprise of a capitalist sort (Thorner *et al.* 1966).

resources may even be seen to be efficient for the household (Alderman *et al.* 1995).[3]

Much evidence has been presented on the unequal distribution of resources and commodities within a household. This distribution is affected by many cultural and traditional norms and laws. For example, in many developing countries, men have eat first, then women and children and if food is in short supply these become undernourished. Scarce resources are allocated between competing ends, thus the nature of this system of distribution could be viewed as economic.

Fortin and Lacroix (1997) claim that with the unitary model, it is impossible to review individual preferences of household members, or the parameters that characterize the internal processes determining the observed outcomes. Consequently, it is also impossible to analyse intrahousehold inequalities or external transfers to intrahousehold resource allocation with this model. This fact should be recognized in drawing policy implications. As Chiappori (1992: 440-1) points out, traditional models can be inadequate and misleading in such policy issues as the welfare of individuals, because these focus on income distribution across households, not within the household even though the within-household distribution is central to individual welfare.

1.2.4 Finding alternatives to the unitary model

Briefly, the arguments of the traditional economists reveal their reluctance to view the household as an important economic actor. It is an easy but misleading attempt to solve the 'household problem' with the application of the theories of the consumer, or of the firm. Furthermore, it is obvious that the approach which considers the household to consist of only one member—the authoritarian patriarch—is a simplified solution to a complicated problem.

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[3] Intrahousehold inequality can be a major drawback of public policy that aims to promote the well-being of individuals. Haddad and Kanbur (1990) have examined intrahousehold inequality in an effort to determine the seriousness of ignoring this factor. They note that most policy analysis until recently has equated the well-being of the individual with the average well-being of the household because, according to assumption, resources within the household are allocated according to needs. However, a growing body of literature has shown that this in reality is not the case. Haddad and Kanbur (1990) argue that if the primary objective is to enable policymakers to estimate the *levels* of inequality and poverty, intrahousehold data needs to be collected. However, if the objective is to determine the *patterns* of inequality and poverty across key socio-economic groups, the costs and benefits of intrahousehold data collection should be assessed carefully. These authors also emphasize that their results need to be confirmed with other datasets.

Collective models of household behaviour try to capture the different preferences, conflicts and inequalities evolving among household members. These models prescribe to the individuality of household members rather than the joint decision-making process. Collective models are sometimes divided into two types: cooperative and non-cooperative. Cooperative models assume that individuals form a household if this option is more beneficial for each party than remaining unattached. Non-cooperative models imply that individuals have separate economies within one household and they do not enter into enforceable contracts with each other.

Similarly, however, as more variables are included in the analysis, the collective models introduce complexity and additional assumptions (see, for example, Strauss and Thomas 1995). This again creates problems if the formulation of public policies is based on these models.

To find a more flexible definition of the household and its operations, one option lies in the possibility of re-defining the concept of the household to reflect the focus of the research, its geographical area, and purpose. Environment, cultural background and historical setting can further affect this definition (Mattila 1992).

In this study the household is recognized as a group of more than one individual (although a single individual can also constitute a household), who share economic activities necessary for the survival of the household and for the generation of well-being for its members. Although household members have varying aims and objectives as well as individual goals, they also share a common concern for the well-being of each other. The household fosters economic and social relationships between its members (intrahousehold relations) but also between households (interhousehold relations), and maintains a mutual relationship with the economy and society of its immediate location. Thus, all micro- and macroeconomic policies influence the structure and operation of households.

The study of household economics is closely related to gender issues, particularly the work and status of women within the family and the household. Sen (1987:3) focuses on gender aspects currently emerging in household economic theories, and argues that, 'To concentrate on family poverty irrespective of gender can be misleading in terms of both causation and consequences'.

1.3 Elements of the consumer theory

The conventional consumer theory defines consumption as the use of goods and services to satisfy immediate needs. The theory assumes that utility resides in the goods and services themselves. Mathematically, a consumer's utility function is said to be a function of goods and services. It is this function that the consumer, subject to her income resources, maximizes.

Time is not an integral part of the traditional economic theory and its analysis. The consumer theory, for instance, assumes that prices of commodities and individual income do not change for the duration, for instance one month, of the study of a consumer's choice. Furthermore, a consumer chooses her consumption bundle for the month in a single decision.

The consumer, as a rational individual, ranks the appropriate consumption bundles according to her preferences, and trying to identify the best alternative, chooses the bundle with the highest ranking. The general assumption is that consumer preference is endowed with certain properties which give it a useful analytical structure. For example, the consumer is capable of expressing preference or indifference between any pair of consumption bundles (completeness property) and the consumer never becomes satiated with goods (non-satiation property). Furthermore, none of the goods are regarded as a bad.

As prices or income change, the consumer will re-define his optimal choice. This would imply that, as prices reflect people's evaluation of goods and services, prices can be used to assess the welfare benefits of policy proposals which would induce changes in consumption (Varian 1990).

1.3.1 Critique on consumer preferences

Consumer preference properties and their relevance can be questioned because consumers lack complete knowledge of goods and services; for example, the completeness property implies that the consumer has absolute and perfect information of the goods as well as foresight into the future as it affects his consumption plans. People are assumed to be in a position to compare all presently available market goods as well as all future goods. This surely is not possible.

In addition to consumer preference properties, another open question concerns the reason why utility stays stable as the consumer moves along an indifference curve? When the consumer due to changed circumstances chooses a different set of goods than previously, and moves from one point

on an indifference curve to another point, we still claim that she is equally well off in both circumstances. Why? Because it is assumed that all goods are substitutes. This is a very strong hypothesis.

The traditional consumer theory excludes technological or market uncertainty in its analysis. It is, however, obvious that uncertainty and incomplete information have an effect on consumer behaviour, changing bundle demands, or enabling better decisions.

It can also be said that the traditional consumer theory makes no effort to explain what is meant by the term 'preferences', how these are formed, and how they respond to changes in the social and economic environment of individuals. The term 'preference' and its purpose are taken as an axiom. The consumer theory simply introduces the preference-indifference relation as a primitive concept. To be able to predict the choice of a bundle in a given situation, detailed knowledge of the consumer's preferences is needed. And obviously the tools supplied by the model are not very useful in this regard (Gravelle and Rees 1981).

1.3.2 The utility function

The utility function is simply the labelling of consumer preferences: indexing stronger preferences with stronger utility labels. Utility cannot be measured in absolute quantities because the unit of measurement depends on the utility function chosen (Estola 1996). The only important fact is determining whether the utility of one bundle outweighs another.

Eastwood (1985:48) defines utility as 'the satisfaction derived by a consumer through the use of goods and services'. But a household can generate utility through avenues other than market goods; for example, from leisure time, or from non-resource allocations such as friendship and health.

Eastwood applies the term 'utility' somewhat arbitrarily since utility in microeconomics is actually a measure of *material* well-being derived by an individual consumer from the consumption of market goods and services. It is not meant to describe the well-being gained from social relations, leisure time activities, etc. The utilities described by Eastwood are a part of the wider concept of well-being used, for example, in social politics. Defining welfare according to its material aspect is regarded in social politics as well as among other disciplines as being too limited, and faces strong criticism.

Based on the traditional consumer economic theory, the optimization problem of a consumer depends on his preferences, prices of commodities and his monetary income. Decisions of the consumer, subject to existent constraints, can be expressed as a demand function in which a consumer's demand is influenced by prices and the level of wealth. As the model can predict the effects of change in the exogenous variables (prices and income) on the equilibrium values of the endogenous variables (consumer's demand for goods), it can be used to examine how an optimal bundle is altered by changes in the variables.

II BECKER'S NEW HOUSEHOLD ECONOMIC THEORY

2.1 Overview

The traditional consumer theory with all its weaknesses is obviously an incomplete interpretation of consumer behaviour and particularly of the behaviour of a household. The so-called *alternative* models, which still represent neoclassical models of consumer behaviour, have incorporated some of the elements missing from the traditional theory.

The most frequently quoted and analysed alternative views on the consumer demand theory were developed independently by Gary Becker and Kevin Lancaster. Hawrylyshyn portrays these two models as the 'Becker-Lancaster Theory', a clear illustration of their similarities. The two studies, however, concentrate on different aspects of household behaviour (Hawrylyshyn 1977).[4] Becker emphasizes the time element and Lancaster the production of commodity characteristics. Both criticize the traditional theory for oversimplifying the functional relationship between market goods and utility, and suggest an elaboration of this relationship (Hawrylyshyn 1977).

Gary Becker considers the family to be the most fundamental societal institution in the society and his theory—the new household economic theory—was originally adopted to describe resource allocation, decision-making and utility maximization processes of households in the USA, Japan and Israel. Later the theory was also applied to developing countries and particularly to the analysis of agricultural households.

[4] It should be noted here that Hawrylyshyn, Becker or Lancaster do not question the use of the term 'household' in connection with consumer theory.

Becker's approach brings noteworthy new insights to the traditional consumer theory; for example, he considers the household as both a consumption and a production unit. However, many of Becker's ideas on household economic behaviour have been presented earlier and thus can not be regarded as thoroughly *new*. Nevertheless, his presentation was formalized to a greater extent than any of the earlier ones.

2.1.1 The economic approach

Becker (1993) uses an economic approach to analyse issues that extend beyond the scope normally considered by economists. He explains that human behaviour is driven by a much richer set of values and preferences than mere self-interest: this argument is, however, difficult to see in the theory itself.

Becker's (1979) approach is based on three related assumptions: maximizing behaviour, market equilibrium and stable preferences.[5] Furthermore, he talks about *the rational choice approach* which uses a framework to combine maximizing behaviour with the analysis of marriage and divorce markets, division of labour, investment in children, etc. To explain fertility decisions, Becker (1993) refers to the high value of time which increases the cost of children, thus diminishing the demand for large families, and reducing fertility.[6] There is no distinction between major and minor decisions, or between different income levels, education or family background. Despite these limitations, Becker argues that *the rational choice approach* is a comprehensive method applicable to all human behaviour.

However, the approach diminishes the importance of human behaviour dramatically. For example, there should be a distinction between major and minor decisions because different values and aspirations influence different types of decisions and have a varying impact on human life. Because of its inability to differentiate between income levels and other background variables, Becker's analysis is unable to explain differences in wealth or in culture, etc., or the consequences of these differences.

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[5] Becker (1979: 10) claims that 'maximizing behaviour and stable preferences are not simply primitive assumptions, but can be derived from arguments about natural selections of suitable behaviour as humans evolve over time ... Indeed, the economic approach and the modern biological theory of natural selection are closely related ..., and are perhaps different aspects of the same more basic theory ...'.

[6] The economic approach does not assume that decision units are necessarily conscious of their efforts to maximize or can express reasons for the systematic patterns of their behaviour (Becker 1979). This view is consistent for example with emphasis on the subconscious in modern psychology.

2.1.2 Beckerian household

Chiappori (1992) notes that in a Beckerian household, there are only two members, each of whom is characterized by his own preferences. Becker recognizes that conflicts exist between household members (1981) but because of the tools he applies to material behaviour, is incapable of including this aspect in the analysis. For Becker, 'caring' (including rotten kid-theorem and altruism) solves the problem of distribution within a household.

Becker introduces a particular rule for bargaining or decision-making according to which the household maximizes only one individual's utility function, which is also the utility function of the altruistic member (Manser and Brown 1980 and Chiappori 1992). This assumption, however, leads to two major problems. First, how are individual preferences aggregated and how is the collective decision to be characterized, and second, how is it decided as to who gets what? Becker avoids these questions by assuming that there is only one aggregate consumption good, produced by the household and consumed by each member (Chiappori 1992).

2.1.3 Introduction of time as a scarce resource

Arguably, the most important contribution of Becker's theory is that he introduces the time of a consumer as a scarce resource in the decision-making process.[7] Available goods and services may increase, available time does not. Consequently, demands remain unsatisfied, and as goods become more abundant, time becomes more valuable (Becker 1993). Becker divides time in two categories: labour time and consumption time, which implies that he sees the consumer as either a worker outside the household or as a consumer within the household.

As Becker's model does not differentiate between the various uses of time within a household, individual household tasks are not recognized. Not understanding the utilization of time within a household causes difficulties in understanding the household division of labour and its consequences. Similarly, household work remains undervalued. This indicates that Becker's model is best applied to the study of market labour and market goods (see, for example, Ruuskanen 1994).

[7] Earlier it was assumed that the only requirement of the consumer to be able to purchase market goods is money income derived from market work.

2.2 The household production function

Becker's theory of the household production function clearly exploits aspects of the theory of a firm (comparative advantage, specialization, human capital, etc.). At the beginning of 1960s, according to Becker (1965), economists started to view the household as a small factory. As a production unit, households '... combine capital goods, raw materials and labour to clean, feed, procreate and otherwise produce useful commodities'.

In the household production function, time plus market goods and services combine to produce the so-called basic commodities, or nonmarket goods (see, for example, Bergström 1997). Basic commodities according to Becker are, for example, children, health, pleasure, sleeping or seeing a play. A household chooses the best combination of these commodities, i.e., a combination which will maximize the household utility function.

2.2.1 The role of time in the household production function

Constraints on household production are imposed by the limited time available and partly by available income. Income is spent on commodities, either directly as in purchasing goods, or indirectly as in foregoing income (by spending time at home rather than at work). How much income is earned or relinquished depends on the consumption variable chosen; the less leisure, the greater money income, and the smaller the income amount relinquished.

Time can be converted into market goods by spending more time at work than at consumption (non-work time).[8] Time spent at work is reduced if real wage rates decrease, and is correspondingly increased as real wage rates increase, making the relative price of non-work time more expensive. A rise in earnings[9] increases the opportunity cost of time used in consumption and the relative prices of commodities change, so that prices of more time-intensive commodities rise more than those of less time-incentive goods (Becker 1965), thus reducing the consumption of those commodities that have become costlier in favour of those on which prices have not risen. According to Becker, capital and technology growth has improved the productivity of consumption time, for example, through supermarkets and telephones.

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[8] Atkinson and Stern (ref. Ruuskanen 1994) realize that Becker can combine the time and good constraints only by assuming that work does not provide direct utility to the consumer.

[9] In the traditional consumer model money income is given but according to Berker, money income is determined by the time devoted to market work.

Becker measures the value of non-work time, which includes also household work, by using the term 'foregone' income or 'lost' income. This can be interpreted to mean that work or even production within the household is done at the cost of losing market income. The cost of time is less for commodities that indirectly contribute to earnings. These commodities are called productive consumption and include sleep, food, etc. (Becker 1965). It is difficult to define specifically which part of non-work would be determined as productive consumption. Even Becker offers no insights for making this distinction, proving again the inability of his theory to look at the different tasks within the household, or to recognize its various ways of using time.

Becker does not pay specific attention to leisure. Any utility gained by spending time at casual activities would only be a by-product of the pursuit of money income (Becker 1965).[10] This implies that activities within the household, the basic commodity production, are undertaken only to improve efficiency and gain income from work in the labour market. Household work is assigned only the role of labour reproducer and the purchaser of market goods. Household members are taken care of within the household sphere in order for these members to be efficient servants of the market economy.

Again, human aspects of the behaviour of household members are forgotten. Human actions are motivated by more than just market values. People do not always calculate the monetary value of their time or actions; other values may prevail and can clearly be even more important than wage earnings and the motivation to maximize.

According to Gronau (1986, ref. Ruuskanen 1994), the household production function does not bring new elements to the science of political economy. The theory only complicates the traditional analysis. Outcomes of the production function could be derived directly from the consumer economic model. One further problem with the theory is that basic goods and home goods are not measurable. Similarly, the production process is difficult to observe; this complicates the analysis in determining shadow prices for these goods (Ruuskanen 1994).

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[10] Becker considers leisure as one of the basic commodities requiring time and other resources as input. But in some of his writings, it seems that Becker considers non-market work as leisure (for example, he states (1965: 498) ' ... the less leisure chosen the larger the money income and the smaller the amount foregone.')

2.3 Comparative advantage in the allocation of time

For any attempt to explain how time is allocated between household members and how equal marginal revenue between wage work and home goods production is achieved, the starting point must begin with the different experiences and investments in human capital (Becker 1991). Time allotment of household members is carried out so that individuals who are relatively efficient at market activities use less of their time at consumption activities than other members.

Becker presents the hypothesis that when a member of a household has a rise in income, other members have to give up their careers to devote themselves to consumption activities, an assumption which again indicates the excessive overvaluation of market work. The model also overlooks the personal ambitions of different household members. One might receive considerable satisfaction from a low-paid job and might not willing to give it up because of a salary increase of another household member. Becker relies on the power of the patriarch as the main decision-maker to allocate the labour time of other household members. In fact Becker finds the reason for women's subordination within the argument of comparative advantage, but even more shocking he has no ideas or suggestions for improving the situation.

Specialization and subsequent division of labour within a household has the same force as the argument for comparative advantage in international trade. Krugman (1991:11) claims that 'nations, like individuals, can benefit from their differences by reaching an arrangement in which each does the things it does relatively well.' The Ricardian model introduces the hypothesis that comparative advantage is solely the result of international differences in the productivity of labour (Krugman 1991). The notion of differences in the productivity of labour is an important feature of Becker's models.

Becker states that married couples benefit from specialization and the subsequent sharp division of labour (Becker 1993). But he does not consider what happens to spouses who, for some reason such as divorce, enter a totally new situation or environment, and are specialized in certain skills only. Old skills may no longer be usable and survival of the individual may depend on skills he or she lacks. Specialization can also be a disadvantage.

Evidence shows that specialization, when taken to the extreme, can lead to a loss of skills in even the most basic tasks within a household. During

recession, when the market situation of a household deteriorates, household members have no skills for appraising the new situation or for keeping their non-market economy in balance. This leads to a deterioration of well-being which contradicts Becker's claim that specialization induces economic gains.

2.4 Empirical tests of the unitary household model

The income pooling hypothesis of the unitary model has been widely tested. If a household were to maximize a single utility function, then income controlled by the man has the same impact on the commodity demand of a household as income controlled by the woman. Due to a joint utility function, for example in the case of a development aid project, it is completely irrelevant as to which household member the project may be targeted for, or which member receives the extra resources. The outcome, the effect of the targeted resources, will be the same.

If income pooling hypothesis were supported by empirical tests, it would provide a rather straightforward guide to policy design. Households could be taken as a unity, without the need to account for intrahousehold relations or inequalities. However, if the income pooling hypothesis rejected, policy expectations that have been based on the unitary model should be scrutinized. Furthermore, if the model were abandoned, it would create an incentive to develop household theories further. The collective models of household behaviour should be tested to ascertain if these can adequately describe household behaviour.

According to Browning *et al.* (1994), it is taken for granted in most empirical implementations that the consumer theory can be applied to the household level. However, as Browning *et al.* point out, empirical studies show that households do not behave like single individuals, and consequently multiperson households cannot be treated as single decision-makers. In their 1995 article, Strauss and Thomas summarize the numerous studies on different preferences of men and women. Their results suggest that resources controlled by different individuals within one household have a varying impact on the welfare of all household members. Welfare here also includes children's health.

The first empirical case we look at is Schultz's study from 1990 in which he examines whether the non-earned income of a husband and wife has similar effects on the labour supply of the family. Based on the 1981 Socioeconomic Survey of Thailand, evidence suggests that contrary to the unitary model, family members are motivated by self-interest in family

resource allocation. Parallel results from the point of view of consumption demand, are found in a study by Bourguignon, Browning, Chiappori and Lechene (1993). At a given level of income, the share of the husband's and the wife's own income significantly affects the structure of consumption.

Utilizing information collected in 1974-75 for a Brazilian expenditure survey, Thomas (1990) examines whether the data are consistent with the Beckerian model of common preferences. Thomas tests whether the composition of unearned income (for example, social security, pensions) has an effect on child health indicators. Based on the Beckerian model, the effect of unearned income should be the same, as it is not dependent on who controls the income. However, the results contradict this, and show that unearned income controlled by the mother has a greater effect on her family's health than that controlled by the father. In the case of child survival probabilities, the effect is almost twenty times bigger.[11] Furthermore, Thomas (1990) finds evidence of significant gender preference: mothers devote more resources to daughters and fathers to sons. Gender bias clearly exists in the allocation of resources within the household. This indicates the inaccuracy of the common preference model.

Duggan's evidence (1995) also contradicts the theory of similarity of interests between the genders. Referring to many studies on different spending patterns between men and women within a household, she claims with good reason that child allowances and other government subsidies for child rearing have a different effect on the family, depending on whether these are paid to the mother or the father.

The results of Rosenzweig's empirical study in India (1986) show that a rise in the value of time of one person significantly affects the time allocation of other family members. An increase in the wage rate of one household member induces the family to reallocate resources within and across household activities. Other family members' goods and time will be substituted for the higher-priced time of the wage earner.

According to Rosenzweig (1986) policymakers should pay particular attention to the interdependence of household members because interventions that aim to encourage certain activities or to augment the welfare of particular individuals will have cross-effects, influence other individuals, and may induce other activities. A project that increases the demand for labour will also promote intrahousehold allocations. Many

[11] The hypothesis of income effects of different members of a household being similar is rejected in most cases.

projects have employment consequences: for instance, attempts to encourage the employment of women in agriculture in India (where most of the available work is found) would increase the time spent by children, especially girls, in home activities. This diminishes the participation of girls in earning activities, and in school, limiting their future opportunities to attain market work.

The cases reviewed contradict to some extent the assumptions of the unitary model of household behaviour, particularly the income pooling hypothesis. There is also evidence of gender differences within a household. Thus, it can cautiously be claimed that government policies should not be based solely on the unitary model since policy results may not conform to expectations, because of the model's failure to analyse intrahousehold resource distribution.

III HUMANE HUMAN CAPITAL

3.1 Explaining the concept of humane human capital

The traditional interpretation of human capital as a tool in the marketplace ignores the human capital needed to promote social links and interactions among people. It is argued here that opportunity cost of market work and shadow prices cannot explain all human behaviour. Not surprisingly, there are more valuable assets than just money income. It is an underestimation of the complex human mind to expect all decisions to be made on the basis of market value only, or on calculations of comparative advantage.

The importance of being with other people increases during economic hardship when governmental support to households diminishes, and the money income of individuals and households is reduced. For example, in Tanzania (Mattila 1992) women formed the so-called marketing networks in order to share both market work and household tasks, and thus facilitate the income earnings and functioning of their households.

Human skills used to promote amicable social relationships are labelled here as 'humane human capital'. Humane human capital encourages an investment in human relations, lasting relationships with relatives, friends, neighbours, as well as with strangers. It promotes shared human interests and aspirations. Humane human capital is acquired, for example, through

the process of networking with other people or with other households.[12] Humane activities—the non-market actions people engage in—*directly* affect human well-being. They create a feeling of belonging within a certain social group, enhance personal capabilities, strengthen social responsibilities and generally create survival strategies, and enhance livelihoods beyond the sphere of the market.

3.2 The intrinsically non-market aspects of humane human capital

For neoclassical economists, non-work time which includes household work (the time not spent at market work) represents a loss of earnings. Such time is evaluated according to a market wage rate. The skills and knowledge people acquire are rated by market prices, and the way in which the market functions can affect the future acquisition of these skills.

In the new conceptualization of household economics, time spent in interaction with other people increases humane human capital and consequently cannot be regarded as *lost* time, even thought it may entail a loss of earnings. Market price cannot be used to directly represent the value of humane human capital because it has an intrinsic human dimension. Market wage has many known limitations in evaluating household work, and it can reflect only a part of the humane human capital. Humane human capital does not directly affect the market wage rate, as is the case with the traditional concept of human capital.

Instead, acquisition of humane human capital increases the productivity of individuals with household work and with other non-market work, which in turn considerably increases the value of work within the household. By increasing the productivity and the efficiency of household operations, humane human capital is definitely an important factor of economic development in all economies.

Humane human capital has a bearing on the self-sufficiency of households in the non-market sphere. Special skills and knowledge are required to perform essential human actions such as caring for the elderly and for infants. These acts are economic because they require an allocation of a scarce resource: namely, time. The essential point is that the skills and knowledge (humane human capital) needed to perform these tasks cannot

[12] In neoclassical economics, the acquisition of other forms of human capital by engaging in market-oriented activities—a process commonly known as 'learning-by-doing'—might be the appropriate analogy here.

be obtained through market mechanisms. Further, the human outcomes of these skills, e.g., love, kindness, sympathy and so on, have no market value. Yet, they have a fundamental bearing on people's well-being, and on the fulfilment of human needs.

The amount of humane human capital is not linked to the wealth of an individual. Traditional human capital is influenced by wealth because wealthy parents, for instance, can provide a better education for their children than the poor, who may be unable to get a loan for the acquisition of traditional human capital, like education.

There is a definite gender difference in the acquisition and use of humane human capital. Women tend to need more humane human capital and to utilize it better since they are the ones predominantly engaged in household production and in other forms of non-market production, particularly in the developing countries.

The concept of humane human capital implies that the well-being of an individual and of a household is not possible without interaction with others, especially with those within the same community. Procurement of humane human capital is best seen as collective behaviour because it affects the individual, her household, and the wider society. However, it is not dependent on market-based calculations. Human relations are a prerequisite for a prosperous and a well-functioning society.

IV THE COLLECTIVE MODELS OF THE HOUSEHOLD

4.1 The various approaches

Collective models of household behaviour, also called pluralistic decision-making models within the family (Bergström 1997), encompass certain factors that cannot be observed with the unitary model of household behaviour. For example, how does an increase in the income of one household member affect the well-being or food consumption of other members? Moreover, according to Phipps and Burton (1995) the collective models can illustrate the influence of external factors, like social and institutional variables, on household behaviour.

Collective models concentrate on the individuality of household members rather than on joint decision-making or only on one utility function. The models pose the question: '... how do individual preferences lead to a

collective choice' (Alderman *et al.* 1995:5). A common framework for collective models, however, still needs to be developed (Chiappori 1992).

Collective models are still explicitly neoclassical models that derive many of the basic assumptions from Becker's theory of household behaviour. In fact, collective models only imply different decision-making rules than those apparent in the unitary model.

4.2 Efficient cooperative models

Efficient cooperative models view household decisions as efficient in the Pareto sense that a household member cannot gain without cost or disadvantage to another member. There are no theories on the intrahousehold resource distribution, implying that the efficient cooperative models have the same basic problems as seen in the unitary model; the division of resources between household members cannot be presented explicitly with the tools of these models.

Chiappori (1992), the first to formulate the efficiency model (Chiappori 1988), argues that the internal processes and rules of a particular household can be defined by observing its external behaviour (labour supply and aggregate consumption). Even when Chiappori uses this approach to define non-observable intrahousehold behaviour, he himself believes that he is illustrating the black box, intrahousehold behaviour. Rules regarding distribution within a household are based on data, not assumptions. (Chiappori 1992b, ref. Alderman 1995).

The efficient cooperative models are founded on the assumption of two individuals, each having his/her own preferences and individual utility functions. The agents of a household are usually regarded as egoistic: their utility depends only on their own consumption and labour supply. However, they are expected to 'care' about one another, meaning that a wife is not concerned about what her husband consumes, only that his consumption makes him happy, and visa versa (see, for example, Phipps and Burton 1995).

4.2.1 The sharing rule

Efficiency in household operations is achieved by dividing available income among household members on the basis of a certain sharing rule. Once the income is allocated, each member is constrained by an individual budget; each chooses his/her own consumption and labour supply through a limited utility maximization process (see, for example, Chiappori 1992).

Alderman *et al.* (1995) argue that efficient cooperative models are at an advantage in that they can illustrate how individual income, among other things, affects the household consumption of different goods.

With regard to public goods, Alderman *et al.* (1995) believe that two individuals in a household first decide on the provision of household public goods, after which the remaining income is allocated on the basis of a sharing rule. In Bourguignon's model (Bourguignon *et al.* 1993), public goods of a household are overlooked.

Since the sharing rule identifies how resources are distributed within a household, it could be utilized in policy formulation. Providing knowledge on intrahousehold distribution, it could facilitate the formulation of taxation policy, direct transfers, etc. But definition of the sharing rule is not given.

According to one theory, the rule is an increasing function of the market income earned by each spouse. Others (see, for example, Phipps and Burton 1995) believe that these shares are also influenced by social norms and institutions, a statement easy to agree with. Ruuskanen (1997) attempted to examine whether a sharing rule actually exists, which could illustrate how changes in exogenous variables effect the shares of each household member. The test is unique, as the existence of a sharing rule has not been examined before. Using data from the Finnish Household Expenditure Survey (1990) Ruuskanen constructed four datasets. As a result, Ruuskanen concludes that in three out of four cases, the theory of the existence of a unique sharing rule is disputed significantly. This clearly questions the existence of a sharing rule within the household allocation process.

Fortin and Lacroix (1997) claim that for analysing a social institution like the family, the cooperative framework appears to be more natural and promising model than the non-cooperative approach based on Nash equilibrium which leads to outcomes that are generally Pareto-dominated. Drawing on the 1986 Canadian Census data on two-income households, Fortin and Lacroix test the unitary and the collective household labour supply models within a structural framework. Their results reject the income pooling hypothesis for all sub-groups, with the exception of couples aged between 24 and 35 with no pre-school children. There is evidence to favour the collective labour supply model for all age groups with no pre-school children, but not for the young couples sub-group with pre-school children. Results indicate that the cooperative model cannot be rejected in the case of households that have more than one member, which is an important finding.

4.3 Bargaining models

Bargaining models apply the tools of game theory in their analysis. Nash was the first to formulate a bargaining problem. The so-called Nash bargaining solution is the concept for cooperative bargaining games. This should be distinguished from the Nash equilibrium which is a solution concept used in non-cooperative games (Gravelle and Rees 1992). Nash bargaining solutions have been applied to marriages, where marriage is a static bilateral monopoly with potential gains for both parties to remain married rather than to divorce. These solution concepts are applicable to many other cooperative conflicts, e.g. industrial labour relations.

In the simplest form of a bargaining problem, two people cooperate in order to improve the position of each compared to a situation in which these individuals do not cooperate (Sen 1985). Each has his/her own interests, preferences and thus also individual utility functions. There is no dictator in the household. Differences in the marriage are resolved and household decisions made through the bargaining process, the cooperative game.

Bargaining models differ from the unitary models in that the decision-making process within a household is explicitly specified. This is also a fundamental difference between bargaining models and Pareto efficient models. Furthermore in unitary models, only pooled family income is considered, whereas the emphasis in bargaining models is on who actually controls the various income sources (see, for example, McElroy 1990). McElroy (1990) raises another interesting point, namely extra household environmental parameters (marriage markets, government taxes, etc.) which determine the opportunity cost of family membership and are thus central to the bargaining process.[13]

The additional variables included in the bargaining models also require more data for estimating the demand system. But, as McElroy (1990) mentions, additional data with detailed information are becoming available, particularly from developing countries.

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[13] Phipps and Burton (1995:154) likewise note that bargaining power includes social and institutional variables. Referring to McElroy's study (1990), they explain that the interdependence of behavioural outcome on extra environmental parameters is a prediction of the divorce-threat bargaining models that can be empirically tested.

4.3.1 Bargaining power and the threat point

The existence of various, selected collusive arrangements give rise to the bargaining problem. It is a continuous process, and new questions that need to be solved continue to emerge(Sen 1985). The bargaining problem can be resolved in different ways, but the solution depends on the bargaining power of each participant.

Bargaining power is affected by the resources controlled by each person both within and beyond the household. It has been stated that outside earnings have a strong influence in creating a difference within a family.[14] Factors such as better education, 'productive' employment, working outside the home, contribute not only to immediate well-being, but also to the acquisition of skills and a better fall-back position for the future (Sen 1985:205-7).

If individuals fail to cooperate, the outcome is called 'the status quo position', 'the fall-back position' or the 'break-down point', terms which indicate that termination of the marriage is the threat point of the model. However, any arrangement is presumed to be better for both parties than the fall-back position. The greater one member's threat point, the stronger his relative valuation of goods in household demands (McElroy 1990).

Fear of the fall-back position tends to govern the bargaining process and to influence the outcome (Sen 1985). Furthermore, the winner of one round of bargaining seems to gain greater bargaining power in the next round.

Some researchers have argued that it is not feasible to imply that spouses threaten each other with divorce each time they have a disagreement (Phipps and Burton 1995). This indicates that the divorce-threatening bargaining models are based on robust and unrealistic assumptions.

A married couple[15] is assumed to resolve their differences according to the procedure detailed by Nash or by some other explicit bargaining solution, and divorce is the threat point—the maximum level of utility outside the

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[14] According to Duggan (1995), if bargaining power is seen to derive from relative incomes, equality in fall-back positions between men and women can be effected only by both parties equally sharing household reproduction work.

[15] McElroy (1990:562) emphasizes that being 'married' does not refer only to the so-called legal marriages. For example, players may be of similar sex, or of different generation, etc.

family (Lundberg 1993). When spouses decide to divorce, it is evident that the benefits from the marriage are smaller than its costs.

Bargaining problems, for Sen, form a special class of cooperative conflicts. According to Sen (1987) members of a household face two types of problems simultaneously: those of cooperation (adding to total availability) and those of conflict (dividing total availability among household members). Social arrangements—including decisions as to who does what (for example, the sexual division of labour), who consumes what, and who makes which decisions—are a response to this compound problem.

Manser and Brown (1980) analyse marriage with the bargaining framework and the two-person cooperative game theory. They note that the bargaining theory is more advantageous than the unitary model because it allows for different utility functions and provides the means for reconciliation of differences (Manser and Brown 1980). Manser's and Brown's utility function theory is similar to that in the unitary model. The existence of non-material goods is generally overlooked in household economic models. But as Manser and Brown note (1980), marriage can provide love and companionship, not just the possibility to share consumption. One interesting aspect of the model is that preferences are not expected to change and Manser and Brown (1980) assume that preferences remain the same as a result of, or in anticipation of, the formation of a new household.

It can be stated that gender difference intensifies the bargaining process. If we think of a household of only men or only women (of different ages and characteristics), bargaining still exists but presumably to a lesser extent than if both sexes were present. Once gender is included in the process (women and men of different ages), the interests of household members are more varied than in a single-sex household. Women also have different options within and beyond the household than men and this affects the bargaining power of both genders.

Seiz (1991, ref. in Duggan 1995), referring to the dynamic character of households, argues against bargaining models, saying that formal models have little to offer household analysis. According to Seiz, formal models tend to provide less useful information than nonformal models. However, Duggan (1995) argues that formal bargaining models have introduced many economists to the importance of power distribution in economic outcomes as well as to the limitations of economic models which do not recognize power within the household.

4.3.2 Empirical studies on bargaining models

As with the unitary model, the practical advantage of the Nash bargaining model is to be able to specify and to interpret the role of explanatory variables in a demand system; the number of explanatory variables being much greater in the Nash model than in the unitary model (McElroy 1990). According to McElroy (1990) the Nash model at the practical level provides a natural vehicle for analysing problems of mutual decision-making in forming households and in the allocation of resources within households. McElroy quotes her study from the year 1985 in which she analyses the mutual decision-making process among sons and their parents concerning the sons' labour force participation. In the rural areas of developing countries, this refers to parents and youth jointly deciding on the labour supply and the migration of these youngsters to the city.

In an interesting empirical study conducted in North Cameroon, Jones questions the hypothesis that the household is a joint decision-making unit and that bargaining exists within a household. The data came from a study on husbands mobilizing their wives for labour in irrigated rice production. As part of the farming system in North Cameroon, men and women have individual sorghum fields which they cultivate separately. Most of this sorghum is grown for home consumption. Rice fields, on the other hand, are almost entirely cultivated together by both spouses. This income is given to the husband for control and distribution. The money and paddy the wife receives from her spouse are regarded as compensation for her work on her husband's field. If compensation is considered too small by the woman, she can refuse to cooperate, devoting her time to her own sorghum field or to other income-generating activities.

In many areas of Africa women have independent access to various income-generating resources. However, the returns on these activities are often lower than that from cash crops. Women also lack access to resources necessary for producing cash crops. Thus, both spouses benefit when a wife cooperates with the husband on cash crop production. However, the share of the wife's profit needs to be greater than the opportunity cost of her labour.

According to Jones, agricultural households can be conceptualized as bilateral monopolies in which the split of benefits is solved by bargaining. These findings suggest that the bargaining model may be more adapt than the unitary model in describing the intrahousehold relations of production and distribution. Jones' findings are important, for example, in formulating policies that affect agricultural production. If the criteria controlling the

allocation of intrahousehold resources and labour are not known, projects may be founded on unrealistic assumptions as to the participation of household members in the production of certain crops or income distribution within the household.

Browning *et al.* (1994) examine whether relative incomes of household members affect allocation decisions. The data, which covered Canadian married couples with no children, and both spouses working full-time, originated from a family expenditure survey on clothing expenses of men and women. The results of this study indicate that the question of 'who gets what' in a household (the final allocation expenditures) is related to relative incomes and the ages of the two partners as well as the wealth of the household. Individual incomes dictate clothing needs for couples. Brown *et al.* conclude that the unitary model is adaptable to single people, but not to couples.[16]

4.4 Non-cooperative models

Non-cooperative models presume that individuals are unable to enter into enforceable contracts with one other. An individual's undertakings are conditional on the action of others (Alderman *et al.* 1995). Non-cooperative models do not expect all equilibria to be Pareto optimal (Lundberg and Pollak 1994).

Non-cooperative models imply that woman/women and man/men have separate economies within a household. Some researchers picture a household as consisting largely of separate, gender-specific economies: a wife's budget is separate from her husband's. Spouses transfer income, establishing the only link between them (Alderman 1995). In fact, this is a phenomenon seen in some parts of Africa, for example, where men go beyond the household to buy food and women prepare it within the household for the children. Women allocate their income for the welfare of the entire household: for food, children's education, maintenance of the house, etc. Men, strangely enough, often spend their individual income in the pubs (see, for example, Mattila 1992).[17]

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[16] Manser (1993) examines demand patterns by considering the differences in the work status and hours of work between males and females in US household level data. Interestingly, she finds that the relative wage variable does not have a significant impact on demands, suggesting that bargaining power is not affected by wage rates.

[17] The use of the term 'household' in the case of separate economies is somewhat ambiguous. If the definition of a household is extended to the concept of members

Lundberg and Pollak (1993) developed the so-called *separate spheres bargaining model* which is a non-cooperative approach to distribution within a marriage. The model acknowledges the theory that distribution between spouses in a two-parent family depends on which parent receives extra income, such as child allowance (Lundberg and Pollak 1993). Contrary to standard bargaining approaches, in the separate spheres bargaining model the threat point is a non-cooperative equilibrium within the marriage, not divorce. [18]

This non-cooperative equilibrium is defined in terms of the traditional gender roles and their expectations. In a non-cooperative marriage, the division of labour based on traditional gender roles, emerges without explicit bargaining. In the separate spheres bargaining models, this voluntary contribution equilibrium acts as a threat point from which bargaining evolves. It is more beneficial for both spouses to maintain the non-cooperative equilibrium than to initiate bargaining, which would bring high anticipated transactions costs and low expected gains.

What keeps spouses together (and what distinguishes a non-cooperative marriage from independently optimizing individuals) are the public goods of a household, the mutual consumption economies (this is also suggested by Lundberg and Pollak 1993). However, in a non-cooperative equilibrium, public goods are undersupplied and thus potential cooperation offers the possibility of gain.

Cooperative action within the household is a prerequisite for the efficient provision of public goods. In a non-cooperative atmosphere between spouses, the provision of public goods is not only inefficient, but also fails to provide the anticipated well-being to household members. This intensifies further when the humane aspect in the provision of public goods is considered. Many public goods, like child care, rely on well functioning human relations (mutual support and affection) in order to be beneficial for all household members. As can be seen, the concept of humane human capital helps to clarify some key issues in the provision of household public goods.

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constituting one economic entity, then it follows in the case of non-cooperative models we should refer to many households within one family.

[18] Konrad's and Lommerud's non-cooperative model (1995) encompasses two family members who can decide whether to use their time so as to benefit only themselves, or to produce a family public good.

V A CRITIQUE

In this section, criticism of the neoclassical theories with regard to household and family economics is presented, with the emphasis on the fundamental assumptions of the models.

5.1 Oversimplification of reality

The focus and primary concern of the criticism directed towards the traditional neoclassical models is the weak interaction between economic theory, genuine problems, and the policies formulated to solve these issues. If there is no contact with actual events, theory in the extreme case becomes useless, or leads to improper policy recommendations or even to adverse development aid programmes.

Particularly when deciding and analysing policies and programmes that will have influence the well-being of households, it is important to be aware of the real problems of households, to understand how these operate, and to visualize the effects proposed programmes will have on targeted beneficiaries (see, e.g. Cornia and Stewart 1993). The household sphere, particularly its economic sphere, is complex. This complicated environment, its actions, motivations and relations with other households and surrounding society should be examined in detail before any action with long-term ramifications is undertaken. This issue is made even more central by the reality that all human beings belong to at least one household.

Kurien (1996:13) asks with good cause, 'Why economics, which many of its early proponents claimed to be a study of an important aspect of daily life, comes to be almost totally detached from concrete economic problems...'. He explains that this fallacy is caused by the tendency of logic and mathematics to create a universe of discourse of its own. However, the problem lies in the lack of relevance to contents (economic reality), self-containing language of economic logic, lack of understanding of human nature and of *social relationships*. According to Kurien, there is a danger that an artificially created world may be viewed as genuine.

Kurien (1996) also criticizes the fact that many arguments and economics theories presume that each participant has sufficient resources at his/her disposal to ensure survival, as well as some surplus to enable entry into market operations. However, as Kurien points out, the development problem is focused on the struggle for mere survival by vast sections of the

population. Any analysis that ignores this fact should not be considered valid. This reality is also an important factor of economics.

If theory is unable to recognize, or to analyse the survival struggle and economic survival strategies of poor households, a big part of the functioning of the household is excluded, giving an inaccurate picture. If economic factors related to poverty are not understood, a major part of all developing country households with their problems are excluded.

5.1.1 Criticism by feminist economists

Bergmann (1995) articulates her concern for the malfunction of the traditional family system, which in many parts of the world fails to provide children with the support of two-parent families, or to control population growth, etc. More importantly, she claims that theoretical development in the field has been fatally simplistic, or even misleading, and has not helped to solve real problems.

According to Bergmann (1995), Becker supports theoretical apparatus that was actually developed to analyse markets and economic growth, and that she applies this apparatus to family behaviour. As Bergmann (1995) notes, Becker limits the theory to view the household as consisting of a dominating male married to subordinated female or females and children. This confines the focus and makes many of the closely bonded groups (unmarried parents, equal-partner parents, single-parent families, same-sex partners) non-existent. Bergmann summarizes her arguments by stating that, 'A close look at Becker's analysis of the family reveals its unreality and inapplicability to any real problems that people in or out of families have'.

Bergmann (1995) further criticizes Becker for believing in the ability of pared-down models with only two variables to produce real facts, even when the situation being analysed obviously has many variables, most of which cannot be represented on a supply-demand curve diagram. Bergmann (1995:149-50) wisely notes that the main fault with Becker's theory '... is that the energy of talented academics gets diverted into elaborating theories of the Becker variety, rather than producing work that would help us in seeing our way to better policy'.

Woolley (1996), compared to Bergmann, expresses a different view of Becker's theory. Arguing that there is a way in which feminist economists can apply Becker's theory to the economic discourse of the family, Woolley does not endorse total rejection of Becker's hypothesis. Despite the

relevance of Woolley's argument, she does not elaborate on how to define and identify the useful elements of Becker's approach. What is the measure to be used to define those parts of the model which support specific women's policies? Becker's theory is based on same simplified assumptions and one component is firmly linked to the other.

But neither does Woolley present a credible base on which an alternative model should be developed. She mentions certain alternative models within the neoclassical tradition, but these unfortunately are not of much help in the ultimate objective of formulating a new family economics with a feminist background.

What is interesting in Woolley's (1996) analysis are her theories as to why Becker attracts so many economists. First and foremost is the general disregard for the history of economics that is apparent throughout the neoclassical theories. Second, Becker's theory and models are simple and neat. Third, Becker validates the reluctance of economists to acknowledge conflict within a family. Much to Woolley's chagrin, the economic profession has also accepted Becker's more controversial work and alternative views marginalizing the family.

5.2 The self-interested human being

The traditional household economics theories consider a human being as an individual, searching for his self-interest. However, Sen (1987) for example, points to evidence where personal welfare is not an issue. Do people by nature act on the basis of self-interest, as the neoclassical theories would suggest?[19] More importantly, what motivates people to act in a self-interest manner? Is it a characteristic we are born with or does the living environment or society—the way we are brought up—have something to do with it?

The findings of Seguino *et al*. (1996) suggest that the neoclassical theory's hypothesis of self-interest is contradicted by real life experiences, and that that it mistakenly relies on the universal assumption of a self-interested economic agent. Collective action and empathy-motivated economic decisions are obvious in real life. Indeed, rational agents are more complex than the concept of human oeconomicus would lead us to believe.

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[19] Altruism even in Becker's model regards the self-interest of an altruist as one of its fundamental assumptions.

Furthermore, Seguino *et al.* (1996) refer to the notion that market economy and activities taken within a market economy steer our behaviour towards self-motivation because a person cannot afford to think about the benefit of others while operating at market. According to Seguino *et al.*, it is evident that our environment helps to shape our actions and our concern for other people. Seguino *et al*. (1996) also find that non-cooperative behaviour is learned, at least in part, through economics training. Marwell and Ames (ref. Seguino *et al.* 1996) have similar results with economic students.

It is somewhat alarming to discover that economic theories and market forces compel us to act according to these rules even when it goes against human nature. If this is true, then theory does not match reality but shapes it instead in the desired direction. This argument supports Kurien's (1996) notion of economists having the tendency to create their own world, regardless of real life and actual human behaviour.

It is argued that the degree of self-interested behaviour varies according to gender. Gender affects the allocation of household resources. Women usually spend more resources than men on the well-being of all household members, for children's education, food consumption and clothing. This is undisputedly confirmed in numerous studies.

Rejecting the assumption of self-interested action (as Seguino *et al.* 1996 also mention) introduces the concept of maximizing behaviour of an individual whose only interest is to achieve as high a level of utility as possible. But human beings have other aims than merely maximizing their individual material utility. This questions the very fundamental assumptions of neoclassical economics, along with many of the current household economic theories. Some alternative models on human behaviour have already been presented which accept human behaviour as being interested in both the self, and the common good of other human beings. These include the multiple utility and meta-preference approaches.

5.3 Harmony, altruism and caring within a household

Folbre (1986b) argues against the altruism assumption within a family. According to her, it is inconsistent to suggest that individuals who are expected to be entirely selfish in the market are entirely selfless within the family, where they are assumed to pursue the interest of collectivity (1986a). Folbre correlates inequality within the household to the different bargaining power of men and women. She also links bargaining power to the patriarchal power structures in society; differences in access to the means of production, wealth and wages (Deere 1995).

The formal definition of altruism by Becker excludes the tendency to favour equal sharing or the same standard of living for both partners. It does not cover issues like status, kindness, desire for a compassionate marriage or personality and intellectual development. In Becker's view, the self-destructive behaviour in families that destroys happiness never occurs, even thought it is fairly common (Bergmann 1995).

Caring is a term recently introduced in the writings of feminist economists. Ironmonger (1996) sees the caring role of a household as maintenance of human capital, or the resource from which human labour is supplied for both the household and the market. For its caring activities, a household utilizes its own labour, human capital, space, equipment and other physical facilities. Ironmonger classifies care into two categories; physical care which includes meals, exercise, health, washing and sleeping, and the psychological care such as education, conversation, recreation, rest and sleep.

VI SUMMARY AND CONCLUSIONS

6.1 Summary

The objective of this paper was to review the principal assumptions and aspects of the various theories of household behaviour—the unitary approach and the collective models. Both of these categories adhere to the tradition of neoclassical economics. Some of the more controversial points in the literature, particularly by feminist economists, are also included. Suggestions for improvement are given throughout the paper. Furthermore, the paper presents certain empirical studies which attempt to determine whether the theories under review are adequate for the analysis of household behaviour and to identify the policy implications that can be drawn from the findings.

The definition of the term household differs considerably depending on the theory base being used. For example, the unitary model ignores the inequalities and different utility functions of household members that the collective models try to capture. The unitary model views the household as a harmonious unit with an altruistic patriarch who keeps the household functioning for the common good. The household is, in fact, taken to be one individual.

The cooperative collective models acknowledge that the household is formed by more than one individual and that conflicts arise among its members due to different preferences and aims. The collective models assume that certain bargaining rules or sharing rules exit, which form the basis for decisions made within the household. The non-cooperative collective models, on the other hand, consider separate economies to exist within one household and that individuals are unable to enter into enforceable contracts with each other.

In addition to the collective models, individual preferences can be recognized in the efforts to substitute aggregate preferences and average utility functions for individual ones. Every individual utility function can be labelled with a predetermined weight. Significant as this attempt might be, it is still extremely difficult to implement and so far no credible method has been devised.

The early consumer theory is the starting point of all neoclassical household economic theories developed thereafter. This is why it is so vital to know the very basic assumptions of the theory and to examine whether these have steered household economic theories in the right direction—the understanding of the household, a complex multi-person entity.

The traditional consumer theory is based on the hypothesis that the individual, one consumer—the unit of analysis—maximizes his utility by using market goods and services, subject to his income constraint. This assumption introduces one of the major flaws of the consumer economic theory: the hypothesis that the consumer has perfect information of the present time and of the future, and the consumer is always able to choose the best possible bundle for himself.

Gary Becker's theory, the so-called New Household Economic Theory, is the most complete presentation of the unitary model of household behaviour and builds on the traditional consumer economic theory. It introduces new insights for the analysis of households. Utilizing an economic approach to human behaviour, Becker takes the tools normally applied in market behaviour analysis to explain household behaviour. His approach includes three crucial interrelated assumptions: maximizing behaviour, market equilibrium and stable preferences.

The most fundamental contribution of Becker's theory is the introduction of time as a scarce resource in the decision-making process of a consumer. Time is classified as either labour time or consumption time. Becker

considers the consumer to be either a worker in a market sector or a consumer buying goods and services from the market sector.

Becker also introduces the household production function by *excessively* exploiting the analogy of the competitive firm. The household is taken to be a small factory, or a production unit, which produces basic commodities, non-material goods (sleep, children, etc.). These in turn produce utility. In his analysis of basic commodities, Becker includes Lancaster's characteristics of commodities. This is a simplified account of reality at the household level.

Market work and non-market work is distributed between household members according to the comparative advantage principle, a false comparison to international trade. Furthermore, according to Becker, household work is 'foregone income' or 'lost income', constituting lost opportunities when not participating in the market work.

This paper presents the concept of *humane human capital* which complements the understanding of skills and knowledge essential to household non-market operations and to humane aspects of economic behaviour. The concept of humane human capital originates from the fact that decisions are motivated by more than market calculations or the comparative advantage principle. Increasingly, failing economies are causing people to seek social contacts and networks in order to have lasting human relations, share interests, learn skills and information, give and receive help, etc. Humane human capital affects directly and indirectly the well-being of an individual and her household by increasing the productivity and efficiency of household work. It promotes self-sufficiency within households in non-tradable goods and services.

The collective models of household behaviour incorporate certain aspects that could not be analysed through the unitary model. These include the intrafamily decision-making process, elaboration of individual preferences and subsequent multiple utility functions within one household. Individuality of household members and inequality between members are also recognized. But the wide range of collective models of household behaviour has been the subject of attempts to develop these into new forms and even new frameworks. In particular, gender perspective in household operations has gained much attention.

The main criticism of the neoclassical household models in this paper is the fact that these models do not provide adequate analytical tools for understanding reality. Without helping to understand genuine problems and

circumstances, theory is only an abstract concept that serves no useful purpose.

Implications for policies that are based on the empirical findings presented in this paper should to be drawn with caution because none of the tests provide sufficient evidence in favour of one particular model only. For example, Ruuskanen (1997), who tested household economic models and reviewed some of the earlier tests, is careful not to make any policy recommendations. He concludes that it is too early to determine policy implications of the models without more evidence to validate certain models.

Having said this, one policy conclusion can be made without too much room for error, and that is the rejection of the unitary model in all cases, except in single person households. It is obvious that household behaviour prognosis becomes more accurate if intrahousehold distribution (including inequality within the household) are included in the analysis. But, the rejection of the unitary model does imply that the collective models are accurate either. Here also, more empirical tests with appropriate data are needed and a common framework should be developed to make test results more comparable.

Although collective models are better than the unitary model in bringing insights to household behaviour by opening the 'black box'—the family—difficulties do arise in testing the collective approach. At the very least, additional data are required. Ruuskanen (1997) has listed some of these collective model data requirements. They include, among others, information on prices, household-level income, non-labour income, particulars on extra-environment parameters (government taxes, divorce laws, etc.) and data on threat points as well as more accurate statistics on women's contribution and division of tasks within the household. This has proven to be a complicated task.

Most of tests categorically overlook female-headed and single parent households. Evidence from the developing countries confirms that female-headed households are very common, particularly in Africa[20], but how can policies be directed to these target groups if female-headed households with numerous children are not taken into account in theory, or in tests?

[20] In 1978, 25.2 per cent of all households in Rwanda were female-headed (UN 1986). In 1970-72 the corresponding percentage in Malawi was 28.8 and in 1969 in Kenya, 29.5.

The many limitations and assumptions of the tests and restricted population samples make it impossible to generalize the results to the whole population. Country boundaries, cultures, religions, etc. place restrictions on the applicability of the tests and it is evident that these cannot offer precise information for policy implementation in all conditions. We need to ask, under what conditions are these findings applicable, and where?

In addition to acknowledging intrahousehold distribution and inequalities, it is equally important is to recognize that there are numerous valuable exchanges and transfers between households, a fact often forgotten. Williams and Marques (1994) conduct a unique study in which they assess the interhousehold exchange of goods and services in Anglo- and Mexican-American families as well as in Brazilian families. They claim that as the informal sector increases in the future, more and more networks between households will emerge.[21]

My review of the household economic theories indicates that no theory is dominant. Even the terminology used in household economics relies on concepts from the theory of consumer choice, or of the firm. It is essential in theory and in empirical tests to depict all the multi-faceted elements of various households: these may include many adults, or many children, some earn regularly, some work in the informal sector, some adults are involved completely in the household subsistence production, etc.

This review, supported by empirical findings, clearly highlights the obvious need to develop existing household economic theories further, or even to introduce a completely new analysis of household behaviour. Perhaps the development of a new approach could make use of the controversial issues presented here. A more comprehensive approach that could realistically articulate actual circumstances would also mean that better-designed policies can fulfil their obligations to the target groups.

6.2 Conclusions

It is easy to elude the challenging problem posed by households and their economic and social operations by reviewing the problem through traditional approaches, like the consumer choice theory, the firm theory, or

[21] Similar results are found in Tanzania (Mattila 1992) where networks between households have a positive effect on household income earning and on the welfare of its members. Networks also have an impact on the economy as a whole through the creation of new economic opportunities for earning household income.

other abstract models. Without hesitation, neoclassical theories are taken as good representations of household economic behaviour, yet these are actually based on simplistic assumptions of human behaviour.

An improvement of the household and family well-being need not depend on the application of market economy principles only. People continue to search for non-market institutions such as security, closeness, humanity, and social connections to improve their lot; the family is the first place to begin the search for these. Human welfare is based on the structure and operations of households, as well as on other institutions of society.

If households operate poorly or inefficiently, e.g., if they ignore some of their members or are unable to fulfil the basic needs of others, the whole society is adversely affected. When a household malfunctions and cannot satisfy the needs of its members, it is the responsibility of the society and governmental bodies to take action for the support of the household. This should be so particularly in the provision of household public goods.

There is an urgent need to formulate realistic household economic theories so as to overcome the confines imposed by the old theories on analysts and practitioners for so long. The development of a new economic theory of the household requires the brave incorporation of the *humane* aspects of household operations into theory assumptions. A completely new economic viewpoint should be adopted to see the human being and his economic operations in a broader framework which includes the market system as a special case.

The prevailing disregard for household needs and for the true structure of its economic and social operations often results in hazardous consequences when public policy is used to influence the well-being of people, particularly in the developing countries.

APPENDIX TABLE
A COMPARISON OF MAIN FEATURES OF THE VARIOUS ECONOMIC MODELS

	Consumer theory	Becker's model	Efficient cooperative models	Bargaining models	Non-cooperative models
No. of members	One individual (one consumer) with own egoistic preferences	Two individuals with own preferences, one individual has altruistic preferences	Two individuals with own preferences	Two individuals with own preferences	Two individuals with own preferences
No. of utility functions	One utility function	One utility function	Two utility functions	Two utility functions	Two utility functions
Utility	Utility depends on the consumption of market goods	Utility is derived from the consumption of ‘basic commodities'	Utility depends on the member's own consumption	Utility depends on individual consumption plus the consumption of household public goods	Utility depends on individual consumption plus the consumption of household public goods
Intrahousehold behaviour	No conflicts, individual maximizes own utility functio	Member's own preferences cause conflicts which are resolved through the altruistic behaviour of one household member	There is no assumption about intrahousehold behaviour, decisions made are Pareto efficient, the sharing rule divides the resources between household members	Bargaining process through cooperative game, solution depends on the bargaining power of each participant, the result is Pareto efficient	Household has separate gender-specific economies, there is income transfers between wife and husband, bargaining is described by non-cooperative game, not all equilibria are Pareto optimal

Threat point		Outside option, divorce	Non-cooperative equilibrium within marriage from which bargaining proceeds, equilibrium is based on traditional gender roles and specialization to certain tasks

Source: Compiled by the author.

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