Introduction

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1 Overview

Everyone knows that economists have always studied prices, trade, markets, and money. Not everyone knows that they are now also researching topics like marriage, fertility, religion, politics, fads, crime, and punishment. These areas might seem intrinsically non-economic, and so inaccessible to economists. They are part of the field, however, when we have a broad and complete understanding of what economics is.

Contemporary economists believe that economics is not defined by its subject matter but by its method. Economists try to understand and explain the world by assuming that the phenomena they observe are the outcomes of people’s purposeful decisions. Individuals try to achieve their objectives, given their limitations – limited time, money, and energy – that is to say, they optimize. The interactions of individuals will determine aggregate social outcomes – that is, market equilibrium.

This broader approach needs a more comprehensive definition of prices, goods, and markets. Markets are places where goods are exchanged and prices for those goods are paid. For economists, goods are just things we want to obtain. They can be resources like oil, manufactures like cars, or intangibles, such as esteem of one’s colleagues, peaceful relations between countries, or a quiet evening at home. Some goods cannot be “purchased” only with money. Esteem, peace, and quietude are obtained by other means. Even goods such as meat (in Eastern Europe) and football tickets (in the US) are purchased with time, queuing on a first-come first-serve basis. The full price that people pay is a composite of the time, money, and effort they must give to obtain the good.

Divorce, parenthood, revolutions, education, crime in the alleys, and dancing in the streets are all instances of people making choices and paying prices for things they value. In this context all arenas of human interaction are markets and subject to economic analysis, which is the examination of people’s behavior, of their choosing between alternative uses of resources.
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The expansion of economics to new subjects is associated primarily with Gary S. Becker. He demonstrated the degree to which economic reasoning can improve our understanding of behavior. By illustrating the effectiveness of economic analysis in areas like crime, addiction, marriage and divorce, and addiction, Becker generated new areas of study and led hundreds of social scientists in innovative, challenging directions.

Some of these directions are examined in the following chapters. This book, written by students and colleagues of Becker, contains many illustrations of economics applied beyond the conventional scope of the discipline. In the following sections of the introduction we provide an overview of Becker’s work and of the subsequent chapters.

2 Discrimination

The Economics of Discrimination was Becker’s dissertation at the University of Chicago. It is very unusual for a doctoral thesis in economics to have a major impact on the field, and especially in this case where the work was very new, intellectually daring, and highly controversial even among economists. The use of economics to analyze a touchy subject such as discrimination was received with hostility by many economists, who thought this was straying too far afield. However, more than thirty-five years later, the economics of discrimination is firmly established not only in economics, but in nearly all the social sciences and in policy analysis.

Aside from the societal importance of the topic, the economics of discrimination had the hallmark of all Becker’s contributions: the application of the stringent analysis of economics to a major social problem. This paper opened the way for an economic approach to human behavior, which was to have an enormous impact on the profession.

The theory, described in chapter 1 by Barry Chiswick, is fairly straightforward. It begins by assuming that some people have a taste for discrimination, a preference against associating with members of some other group. As with any taste, people are willing to pay to indulge it. For instance, a consumer who dislikes purchasing goods from a minority-owned store will pay a higher price to buy goods elsewhere. This gap in willingness to pay plays a similar role to tariffs in international trade – creating a wedge between domestic and foreign prices for the same good. As is known from the theory of international trade, such tariffs can end up hurting both countries, since gains from trade cannot be realized. Becker’s theory shows that not only the discriminated-against minority but also the discriminating majority can lose out. Another result is that discrimination can lead to physical or economic segregation of the two groups.

A related question, recently much debated, is whether immigrants are discriminated against, and what kind of impact immigration has on the US
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labor market. George Borjas’s chapter 2 on immigration explores these issues by comparing the performance of the immigrants of the 1960s and 1970s. Borjas also examines the possible impact of different immigrant groups on the earnings of native-born workers, which could shed light on the policy battles over the effect of immigration, both legal and illegal.

3 Crime and punishment

Becker began to think about crime in the 1960s when driving to Columbia University for a student’s oral exam. Being late, Becker had to decide whether to park his car in a lot or park illegally on the street nearer the examination hall. He calculated the odds of getting a ticket, the size of the fine, and the cost of putting the car in a lot, and decided it was better to take the risk and park on the street. (History records that he did not get a ticket.)

As he walked to the examination room, it occurred to him that the city authorities had probably made a similar analysis. The frequency of inspection of parked vehicles and the size of the fine should depend on their estimates of the calculations potential violators would make. The first question he put to the unlucky student was to describe the optimal behavior of both the offenders and the police, something Becker himself hadn’t worked out yet.

Chapter 3 by David Friedman outlines Becker’s main contribution to this area, the seminal 1968 paper “Crime and Punishment.” The idea of this paper is that criminal actions are not aberrations outside the scope of analysis of rational behavior. Criminals, Becker postulated, respond negatively to costs and positively to benefits in the same way any economic agent does.

A full statement of the theory shows that increased probability of detection, heavier penalties, and better alternative occupations induce less crime. Careful empirical research has demonstrated the validity of this approach. Becker’s line of reasoning on crime was resisted at first, but it eventually became accepted that economics has an important role to play in the design of legal penalties and enforcement schemes. This work had great influence on the U.S. Sentencing Commission, which reviewed criminal sanctions in the U.S. a few years ago.

In chapter 4 James Coleman discusses who should have property rights in children with regard to education: parents or the state? Coleman argues that to effectively address the issue of rights over children, the appropriate criterion is maximizing society’s wealth. This is the criterion advocated in legal issues by the members of the “Law and Economics” school. Becker is a founder – both inspirationally, and directly with his 1968 paper – of the rapidly growing branch of legal theory known as Law and Economics.
4 Human capital

Becker’s work on human capital is one of his earliest and best-known contributions to economic theory. It is an idea that has acquired an extremely broad scope and had hundreds of applications to real-world phenomena. It began by addressing two relatively simple questions: why do people go to school, and why do people acquire most of their training when young? The answers to these questions are the foundations of human capital theory.

How can capital – an input into production – be part of a human being? The fundamental idea is that people can invest in themselves, purchasing education and training in order to earn more later in life. This may sound rather mechanistic, but casual observation confirms that most high-wage, high-security jobs require a long period of education and/or training. If a worker forgoes years of wages in order to fulfill the requirements for this type of job, it must be because earnings are high enough later to compensate for the lean years. Since the skills – the means of obtaining the return on the investment – are embodied in the worker, the name human capital was applied.

There had been a number of prior theories that explained these issues using biological, psychological, and sociological factors. Human capital theory, in contrast, made the assumption that people attend school to enhance their lifetime well being, and that the way education accomplishes this is by raising wages after leaving school. This had the advantage of simplicity, and also generated dozens of predictions, many of which have been confirmed in the enormous empirical literature spawned by Becker’s book Human Capital. (For a recent survey of this literature by the other father of the field, see Jacob Mincer’s “Human Capital: A Review.”)

Human capital theory predicts that the longer an individual goes to school (i.e., invests in skills) the higher his earnings afterwards. The wage increases are steeper over time for people with more schooling. Becker’s theory also explained the observed relationship between hours of work (say, per year) and wages earned – both rise over time, with hours rising faster, and both decline toward the end of the career. The reason for this pattern is that investment and reward for valuable job skills is directly related to time spent on the job. In this framework the worker’s investment in human capital, hours worked on the job, and earnings over time are tied together in one compact theory. Earnings differentials between jobs are thus explained by differing levels of investment by the worker, both in education and on-the-job training. Chapter 5 by Robert Tamura explains this theory and gives examples from different occupations.

Becker also introduced a distinction between general and specific human
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capital to explain a firm’s motives for investing in its employees’ human capital. If the firm expects to receive a large enough benefit from the increased productivity of its workers, it has an economic incentive to educate and train them. An example is teaching a worker to run a complicated machine that is particular to a firm’s production process. On the other hand, if a firm bears the cost of teaching a clerk to type, and then pays a lower wage to recoup its investment, the worker will leave and take another job, since typing is valuable at many firms and another job will pay the enhanced productivity. This explains why general training will be paid for by the worker in the form of lower wages while training, but the costs and benefits of specific training will be split between the worker and the firm. The worker is effectively “tied” to the firm once the specific training is complete – the skill is useful and rewarded in the current job, but not in another, so there is no incentive to quit.

Human capital theory also has implications for the changing composition of the workforce. It predicts that women who have interrupted labor-force participation (usually by leaving to have children) will have lower wages, fewer promotions, and less reason to acquire high levels of education or on-the-job training. It also predicts that highly educated, high-wage parents will have a high cost of time spent in raising children, and so answers several demographic puzzles, such as why the birth rate of wealthy nations has been slowing in the last century. Tamura’s article on human capital, fertility, and growth expands on the connections between individuals’ decisions about their own human capital, and international trends in population and economic growth.

Human capital, then, claims that people acquire stocks of knowledge and skill, and that the risks and rewards for these actions are similar in many ways to the risks and rewards of any other financial decision. The advantages of human capital over previous theories are its parsimony and flexibility – it is a useful tool for explaining several decisions of firms and individuals, and does so with the moderate assumption of rational responses to rewards in the labor market. Becker and his students have used the idea of “building stocks of human capital” to study addiction, fashion, occupational and religious choice, division of labor between spouses, and immigration, all of which are examined in this book.

5 Household production

Human capital theory is general enough to accommodate several types of capital accumulation. One of the types of capital people can invest in is household capital, to use in household production.

It may be useful here to try to understand what households produce.
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After all, a household is not a business or a factory; family members do not punch timecards or get paychecks when they come home. Or do they? There are some important similarities between households and firms. Becker’s framework is that every household has the task of producing the goods it cares about—home-cooked or take-out meals, many, few, or no children, neat or messy surroundings. How it produces these goods is an economic decision, and can be analyzed using economic methods.

The fields of household production, marriage, the family, altruism, and the allocation of time are all areas of economic inquiry that are closely related to the main tenets of human capital theory. They are related both because they are subject to the same constraints as human capital acquisition—money, time, and energy spent in the household is not available to spend in the market—and because the concept of stocks of human capital for use in the production of goods is the same for both market and household capital. In other words, individuals invest rationally, and may invest either in labor market capital or household capital, depending on where their talents will bring the highest return.

We can call a household any group of persons who engage in joint (non-market) decision making. They divide their resources into market, household, and leisure uses. If they decide to invest in household capital, how would they go about it? Household capital can be the purchase of a machine, such as a dishwasher or a microwave oven, that produces household goods or provides a household service, or it can be the ability of a family member to accomplish household tasks. This can be summarized by a household production function, which sets out the possible combinations of goods, time, and effort that will produce the desired result—in the same way that economists speak of a “production function” for firms. The household production function is extremely useful in thinking about who stays at home, who works in the market, and what the household’s real income (the sum of the benefits of market production and household production) is. Different production plans will yield different incomes.

Using these concepts, Becker explained many well-known trends, such as rising divorce rates, smaller families, and women’s increased labor market participation, as logical outcomes of changes in conditions in the “marriage market,” in the same way that economists explain firms’ decisions as responding to changing market conditions. The “marriage market” is affected by anything that alters the gains from marriage—how easy it is to divorce, whether tax law benefits married couples, or what types of careers are available to women, to name some contemporary examples.

Becker’s theory of marriage is reviewed and extended in chapter 6 by Shoshana Grossbard-Shechtman. She shows how factors such as changing divorce laws and the number of men relative to the number of women affect
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couples’ work and household decisions, as well as the way in which household members split their joint income. The theory of marriage also sheds light on time allocation of husbands and wives. Suppose for example that a married couple is deciding how to maximize their joint utility. Even if both spouses were employed prior to marriage, if there are *gains to specialization* – if one spouse spending all their time in the labor market and the other all their time at home yields a greater return than each spending some time in both sectors – then one spouse may work in the household full time and the other in the market full time. Similarly, if the returns to market labor are high for both, they may both work for wages and purchase household goods (eating out instead of cooking, and so on).

Kermit Daniel’s chapter 7 on the “marriage premium” extends this theory by showing that if a wife is assisting her husband in his career – by taking responsibility for household tasks, by moving when he needs to move, or by giving advice and encouragement – she, as well as he, has invested in his wages and career. This implies that there are large economic consequences to this type of investment, and suggests that the idea of human capital is even broader than was previously thought. It includes not only the worker’s investment, but the investment of the worker’s family (and friends).

To summarize, the way in which a household accomplishes its goals is inextricably related to the members’ abilities in the market and household, and whether specialization in either of these sectors is profitable. This area of economics also lends insight to the issue of who benefits most from marriage, and how the structure of families will respond to outside forces, such as rising wages or changing divorce laws.

6 A theory of public policy

Economists in general have been more concerned with telling governments what they should do than with explaining what they actually do. There has been a recent revival in the study of how the political system actually works, and, in particular, of the interaction of political and economic factors. Research in this area is based on the same principles as other economic analyses: individuals and groups rationally pursuing their self-interest. This leads to a number of ideas about the public sector that conflict with the naive economics textbook view of government as a purely benevolent institution.

Becker has contributed a theory of the behavior of interest (or pressure) groups based on the idea that most government actions are largely redistributions of income across groups in society. Edgardo Zablotsky provides a detailed account of Becker’s model in chapter 8, along with the
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model’s historical roots in Arthur Bentley’s work at the beginning of this century. One of the virtues of this model is its generality: it applies to dictatorships as well as democracies.

Chapter 9 by John Matsusaka provides an economic perspective on the workings of democracy. He argues that actual democracies are quite different from the democracies taught in high school civics classes – an ideal world in which fully informed citizens elect their representatives, who faithfully serve the people’s mandate. Matsusaka describes the real-world democratic process as one in which political actors behave in such a way as to maximize their private benefit in a world with imperfect information. Interestingly, he concludes that the “political market” ends up delivering outcomes that are somewhat efficient and not that different from the civics text’s ideal. This is consistent with Becker’s view that redistribution is achieved by fairly efficient means.

7 Opium and masses

Part V of the book contains articles that are related to Becker’s more recent work. As such, this section is more exploratory in nature, both in its topics and in its methodology. All of these chapters represent attempts to push the boundaries of economics even further. The method is first outlined in Stigler and Becker’s article “De Gustibus Non Est Disputandum.” This paper sets out a method for examining the evolution of tastes at the individual level in response to economic variables like prices, incomes, and information. This is useful in analyzing several issues including habit, addiction, fashion, and advertising.

Methodologically, this work expands the domain of individual preferences to include intertemporal components (consumption of a good today may affect the utility of that good tomorrow) and interpersonal components (one person’s consumption may affect the benefits another receives from that same good – for example, fax machines are more useful if many other people own them).

Addictive behavior

The economic analysis of addiction, pioneered by Becker in his work with Kevin M. Murphy and Michael Grossman (author of chapter 10), is an application of the tools of economics to study a pressing social and personal issue. Using economic concepts like elasticities, addiction capital, and price and income effects, a theory has been developed to understand the impact of alternative policies (“sin” taxes, legalization) on the consumption of drugs, cigarettes, and alcohol by different demographic groups.
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A similar structure – aided by the household production approach – is used by Larry Iannaccone in chapter 11 to develop an economic theory of religious choice. He finds systematic patterns of church attendance, contributions, interfaith marriage, and religious conversion, consistent with economic models of social behavior. He speaks of a “religious production function,” which uses the time and money of members as inputs, and shows that the choice of whether to contribute time or money responds predictably to prices. People with a high value of time (busy professionals) spend more on contributions and less time in church than people with a lower value of time, typically young and old people.

Social interactions

An ironic comment heard in New York or California is that a restaurant’s long lines are only made up for by its bad, overpriced food. Traditional economics has a hard time explaining why people queue for hours for an “in” restaurant when a similar place across the street has no queue at all. Even more puzzling is why the fashionable place doesn’t raise prices to the point where tables demanded equals tables supplied.

Recent work by Becker and others has shed some light on these not-uncommon cases. Becker looks at situations where people like things more, the more other people like them. This relationship across people’s demands can come from several sources. It may be that we enjoy crowds, seeing others, and being seen. It may also be due to the information implicit in other people’s actions. This latter possibility is studied at length in chapter 12 by David Hirshleifer. Using the concept of “informational cascades,” Hirshleifer extends this reasoning to stock markets, urban development, book sales, politics, medical practices, scientific theories, and even zoology.

This analysis has several interesting implications. The success of restaurants will tend to be unpredictable. When a crowd focuses on a single eating place, that place may well remain popular for a long time despite high prices and bad food. People will keep coming because they enjoy being with the rest of the “in” crowd. It also predicts that essentially any place could serve as a focus; hence the sudden switching when switching does occur. Therefore the declines in popularity will not be smooth, but drastic. The entire popularity depended on the crowd, so a decrease in the crowd will make patrons disappear even faster. This snowballs until the restaurant vanishes.

Becker’s model explains why the restaurant cannot raise prices. If it did, demand would fall, and then fall still further with the thinning of the crowd. A small price increase does not lower demand slightly until demand equals supply; instead a drop in demand spirals till the restaurant goes bust.
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Other predictions are that the crowds will be in busy areas visible to passers-by, and restaurants may not expand capacity, because of the dire cost of a seemingly empty restaurant.

The crowds in the hot spots of Los Angeles are not a conventional topic of economic analysis, but why shouldn’t they be? The crowds are a result of social interactions, and so interesting to economists. They also yield insights into other areas of economic analysis where information is a crucial issue, as explained by Hirshleifer’s chapter.

Contagious diseases are another timely example of how individual decisions are influenced by the behavior of others. Chapter 13 by Tomas Philipson outlines the first recent attempt to contrast economic analysis with epidemiological analysis. He explains the economics of sexually transmitted diseases, such as AIDS, and, more generally, infectious diseases. He concludes that actual epidemics look more “economic” than “biological,” that individuals may want to be sick when sickness leads to immunity, and that less common diseases should receive more research funding from government.

8 Methodology

Becker’s program has been called (mostly by critics) “economic imperialism”: the economic approach applied outside the home field. According to Becker, the economic approach consists of:

1 optimizing behavior by individuals,
2 market equilibrium, and
3 stable preferences.

The assumption of optimizing behavior gives economics its strength and structure by hypothesizing that people make the best choices they can subject to limitations on their resources, most particularly time and money, but also information, energy, and ability. Therefore analysis of behavior is possible without assuming humans are crazy or stupid or have decisions totally determined by their environment. We assume, instead, that people are doing their best to make themselves happy with whatever means are available to them. Environments affect tastes and cost–benefit analyses, but that does not weaken the case that human behavior is the outcome of individuals making choices to improve their lives.

It is important to clarify that optimizing behavior is a method of analysis and not an assumption about particular motivations. It does not mean that people are only interested in money, are narrow-mindedly selfish, or that decisions are unaffected by limited information, social considerations, or